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## AMAZING STORIES

## Scientific Fiction

Vol. 5

July, 1930

In Our Next Issue

SKYLARK THREIL, by Edward E. Serith, Ph.D. (A Serial in three parts.) Part L. Jaint about two years ago-aprellersby two years ago in the Againt must—no began that ranch landed story. "The Stormers and the series of the series the seri have no negati that make manual steery. The Mer-half of Spone. State that sleep was enoughted three even investmentally requests for a requel. Beginning with the nest incre-beggint, we begin the acquel in a negal in three parts. "Suchrift There" is more angual force, suction and more thrilling than the other. We magnet that you drolley four magnitude.

WORLD ATAVISM, by Edmand Hardison. WORLD ATAVISM, by Linnerd Revilled. We know that the sun's rays play an all important part in the present stery it is laken that they are constantly improving and coulding a higher once of man. In this short stony, Mr. Hart-lifes used, for Firs, an unusual theme, which he wrates destroyally into a tip of considerable in-

THE INFERIORITY COMPLEX, by Mibs J. Brease, M.D. According to the views of source of a great many consplaced people week the bester of 11 they led a strong joinance of the inferiority corceller, green to them. Here we have us existent subscript giving as a woodering in of feathary based as higher phenistrated as they are president to the constraint of is not only a rossesper of Stereny value, but

THE LAST WAR, by Capt S. P. Mosk, U. S. A. Who should be more authorized to write a clery on the wors of the farture than an army man? Cost Meek is se army man. He has evolved a most inguisious treating on what man may do be the future to conquer reflects. It seems almost properties SOUTH POLE BERYLLIUM, LIMITED, by Peter van Drener, Berginen is a qualitat has all the court of t almost agreems regions, so that the Astarctic is now familiar to us. This story is particularly appor-tume at this time. Both subjects are fresh topics in the world of science.

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Cover Blastration by Morey

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## Interplanetary Travel

By T. O'Conor Sloane, Ph.D.

This not make at the personal day to be incorrelations about, which manifold in going to do but the most forum. Professor Strace Response, who doed in the post 100, and also was only of the leading automateurs of the world, measured this ferming that flying in a homoder-than-do reading you can provide the same and the same possibility and would never be addressed by man. Professor complex, worker of the world's grant admiration, fall influenced all the Longife, modifie or the vectors gitten scenarios, and the believes in the restriction on speller host, the severage of the believes made freelibess experiments in them and suffered mode university to the severage of the se Both of what progress was made at the test theory power, as early days, the Wright biglion, with its comparablely slow readying peopletes and its closery chain drive, was ready the promisent flying median and could go perlaps theny or ferly miles an loan. All the machines of that date were to slow that rind was a harmer, and reasons or avaison sets to enable, andy recording fature, about starries, for their practice, because hig was the ealmost period of the day. The crossing of the leftish Chennel by Blerket is an airplane from France to Engearly days and was commencested by a monument showing the place where he lended. New arricors are considering the possibility of crossing the is fair to say that so investion of man has paralleled that

below and, for the list two decades keer given attractes a name of flight about two breaderd owner greater than the early likewise and a rate of speed on times that of the old Wright matrice. A flight with one playinger was received to be a flight and the second of the control of the con-trol of the control of the con-And we last now arrived at a point of effective development And we have now arrived in a point of violation grouppeners when normally wild predictions neighb by safely indefined in Profosur John Q. Stravet, Associate Profosur of Astro-sociated Physics in Princeton University, before the resurbers of the Brooklys Institute of Acts and Species, declared that it of the Breathyr Laminis or Arth and Species, occurre, and and 16 belief that in another eventy year alighance will have smarted a speed of 1000 miles per hour. The is only firms the speed of the early present along which is no thouse the speed of the early present along the speed of the presentation of the early present along the speed of the present and the speed of 1000 miles yet hour with the annihily free patient the true hash set by Preef. Security

But our professor gots further. He believes that in the not ray dataset future—recoil cally he against the year 2603—echicums pool will be required to make possible seccentric lights to the spots. Other difficulties exist for such trips, of covers, but rot. Succept, assort others, does not brick they are

At a boath of tire or six rales, the strain on an aviator in At a beight of fire or six miles, the strain on an arelater in atmost encoderable, as the cold and surefarties of the six are extremely or one. Artificial heat, of onests, could be provided and some provision could probably be made to supply air for he only kind of sinden which we know of new that wishes

On hird for trays through space is the reaction this, drives on the principle on the rector. In it hand is any other cher method of proquision could be used in the success, which would be reacted a few materials above the surface of the cereb. On the could be successful to the cereb of the cereb. The fundamental is an airplane is due, of current, to the six. The fundamental material is an airplane is due, of current, to the six. The fundamental Parts year, which benchmarked Parts from a fundamental Parts and a Parts year, which benchmarked Parts from a fundamental Parts and the section of 25 males. was able to do so largely because it shot its projectiles to a height the farward metion. This wast also apply to morphismary Ducc an interplacetary stalp reached a height of twenty-five to Once an interpretating map remeat a suppre of twerty-one to thirty takes from the earth, at oxall out down its prover as the is ferwird propers is concerned. After a white, gravity too would be distinguished as the variability point, and a relationary quantity of first would be required to keep the strip grism. In a reason where transitation would not be fish, on account of the

without considering rate. Some name to the secondar-terages in the Generals. Hydrogen, stomford as in the secondar-ful activated hydrogen blow-pape, weight not wright has ear hundred times the energy of coal continuing with oxygen. Activated littingen, with us three electrons in the store, separrecursed strength, with the trace electrons in the stood, require source strength from the possible up to to realer the weight of facil an absolutely mitigation con Co the face of it, the greater part of the journey would be done without the norther of any great power, and when the zero point of gravitation was passed the speed would be needer-sted and resistenced by the gall of the moon or the planet, as the one wight be, which the ovisions were appropriate. In the The most obvices carriany in interponently as high degree be the question of acceleration. Acceleration of high degree much be first to passengers exposed to it, and it must be of a high degree for the traversing of lendless space. Even the transvers of a war airstine at its normal high speed are ex-

causes tweet. We laidly need authority for giving so many interplanetary stores. It is interesting to think of how future generations may read those as carmples of what simple matters the antilests con-sidered "insposities."

# A Visit to Suari

## A Martian Comes to Earth

By A. Hyatt Verrill

duther of "The Bridge of Light," "Death From the Skies," etc.

The included set of the control of t

## Illustrated by BRIGGS

#### CHAPTER I

## Kespi-Nanny Returns

XCITEMENT, speculation, wonder and interout run high m Sonko-Huges, for news had been strend that Kespi-Nanay had returned. It was almost as though a person had returned from the dead. In a way, it was more ereating, for persons had been known to be respectated; moreover, everyone knew that death was merely a state ancoher. But Ketri-Nanay had not died. He had merely disappeared-variabed completely-three Chukitls (years) before, after declaring that he intended to visit Souri, that oreat, plouing, mysterious, planet that from the very beginning of history had been a source of wender, of study and of baffling assistery to laymen and priesting after. It was the propert plane to Seriesarated by some forty-old million Turous (miles) of space. Yet through the ages the astronomers of Soulos-Huara had learned much about their oreat, plowing neighbor, that, like their own planet, raced about the sun and rotated upon its own axis, so that the Soulco-Husran scientists knew that the seasons, the climate, the afternating days and nights of Succi must be very similar to their

Through their telescopes the astronomers of ancient times had attailed Suari; they had viewed its surface from pole to pole and completely around its circumfer-

core, for unlike Quilla (the moon), that presented only one ulide to view as for a Sauri is concerned, Swai presented every portions of Ex surface to the eyes of the nonlinear and consistent inhabitorate of Swain-Mount of Swain-Mou

Always the sunshine or the moonlight streamed upon it from a cloudless sler, and often, on moonless nights. for they had their own mosos, the glow from Sunri illumirated the planet. Through the ages, too, much had been learned of the surface of Seart. Over two thirds of the planet was covered with water (an amoring discovery for the Sonlos-Huarans whose planet was wee fully short of water and was, with the exception of polor sees and inland sees, all land). Vast mountain ranges, great canals (crooked and winding in most remarkable of ice had been seen to cover the tolar regions, and the astronomers were both astonished and pureled to note that the appearance of the band masses changed continually. At times they were white, at others brown, at others green. Gradually they noticed that these afterations followed a regular sequence, that they were repeated at fixed intervals and that they bore a direct reis-



timphip to the position of the almet in reference to the

other planet might be Not. Were they formed like the inhabitants of Sonko-Husers? Were they weird, mor-

ments has been perfected to such a state that the visually closer. It was see epochal discovery when lights barism.

covery when an astronomer of Sonho-Busaca had seen a city on the other plants. With each more discovery of this gort, each announcement that there was some new and indispatable groof of the existence of sentient, intelligent humps on Starri, efforts to obtain a more intinues knowteder but been redoubled.

Ares before the return of Kespi-Nanny, after his mysterious absence, the surface of Suari had been brought ectically within a few thousand miles of Socia-Huara, It was by this time an established fact that the other planet was thickly reculated by some sort of intelligent beings. They had cities, towns, Johns. They moved from place to place. They dug casals, they leveled mountalos, they transformed the surface of their lands over vest areas. Yet all the constant minute studies devoted to them tended more and more to prove to the inhabitards of Sockre-Hears that their neighbors forty million. miles away were immeasurably hadaward and behindhand, that, assuming them to be in the least similar to the Sorko-Huntzon, they were more or less in the same state of civilication as the inhabitants of Sonka-Huara had been in their prehistoric days. Their stunislity, as lutely astomeding. Not only was it evident that they still made use of the archaic method of obtaining foods and other necessities by agriculture, but in addition their

of Southe-Hunn, the mintiligent creatures on Suarishelds to respond to the plant and timple signals that the been devided to attract their attentions. The simplest and mast reality real messages had four formed on the surface of Southe-Hunn and had been displayed day after day when the two plants were nearest to each after day when the two plants were nearest to each taker, yet there had been no expanses, no associating sigmals. To be sure, the weathers had noticed message and the property of the surface of the Southers of they curveyed nothing and it was decided they ware mostly to historiate some great methers of the Souther.

amples of the survival of ancient, long-alondoned har-

THIN had done the strongs, we have a considerable to south the laterate of this action of the principle of the southern for the principle of t

superior knowledge, could be not interpret the woods?

But despite the fact that Kespi's theories and beliefs

was revived, and once more Spari became the center of

all interest, all speculations, all studies.

s- Various will schemes were suggested for visiting the other plane. Learned scientific speet days and weeks in the trace exhibitions to prove that a risp to Start Was advanced tomologies of the streams and scientists was employed in trying to choice some means for making the journey. There were gravalustaally impedies includes a plane, and the plane, and the streams and the plane, and the streams are supported in the streams and the streams are supported in the streams and the streams are supported in the streams and the streams are supported by the stre

ment, some first finite that proved condensively that now words serve.

Despite the Ingloid wornings of the experts, several scenarily were tried. One markins, impelled by the standard wave tried. One markins, impelled by the planet. It guithered speed so swillipy that it become invisible, but, a few monosate bater, a terrific explosion in the upper amosphere told the anxious and hoppful sundances of its inter. Austhern methins, designed to

panels in partiest speak as swinty and it becomes bemarked the query amoughts with the anxious oil height of the query amoughts with the anxious oil height of elithina gravity as were done in the case of the subject and the company of the compa

Sories-Hauran, it was determined the bypool any presidility of durint the appears has belowed a satisfies of the plazest and was doomed forever to move arcent and around the opher (like an attendam play materials). Surbring able to with the fracticality materials Surfaleng able to with the fracticality materials Surfaleng ables most the fracticality materials. Surfag statements. Matter, the declared, was all imagings, and approximately designed to the surface of the congression of the surface of the contraction of the surface of the surface of the contraction of the surface of the surface of the contraction of the surface of the surface of the surface of province and surface. This way by atments a new flower, In fact, generation before Kau-

had been incellented and leverght into existence, other Scotte-Hauman scientists had peremplaned exactly the same theory. But switting had ever course of it, no one had ever been able conclusively to prove it. But Kengi, Namy claimed he could be nowered he bod; and he insioned that his discovery proved the way to vicit Souri and to return in safety. Namen'ly he solt move became the target of deriston.

relicate, poles and increditing. To do a thing was not cough; the important matter was to convince others. Achievement amounts to nothing urban the public admits the fact of that achievement. Korpi was determined that his astoriching achievement should be admitted. So he amounced that he would give a neithic design.

stration of the truth of his chims. His promite was more than fulfilled. Before a wast gathering—in fact, before all the islabitants, for by means of the universally employed vision-disseminators or Mari-Willyan, the demonstration was visible everywhere upon the planti-Kespi Namy caused a rathe of motal, a tablet of Choidlaran or concentrated food, and even a Plin but of the paly wild fowl on Scoko-Huara') to varish before everyone's eyes. Then, as the people listened most attentively. he stated that he had gone further with his experiments than he had revealed hitherto. Not only, he informed them, was matter merely the result of cyrtain arrangements of protons and electrons, each form of matter so-called being the result of slightly varying combinations, any or all of which might at will be broken up into the independent output and so rendered invisible; but, he went on, the same electrons could, by properly devised instruments and treatment, be summaned back into their

original places with the protons. At these words an exclamation of incredulity grose from thousands of tips. It might be possible—in fact, was possible, as they had seen-that matter could be forced to disappear. It was not to very remarkable after all, they decided, for water was matter and yet it could be made to evaporate and vanish. Morali was varish without leaving a trace of ashes. But that mot-

ter, once it had vanished, could be restored to its original state was too incredible. The next mement they began to have their doubts as to their conviction. Keepi, as if reading their thoughts,

was speaking of these very things. Water, he was pointing out, could be recovered-was not this precisely what happened daily? Did the san not evaporate water, cause it to venish? Most assuredly. Yet did that water not fall seain as rain? And salts, dissolved in water and hence destroyed as matter in their particular forms. could, as all learn, he readily recovered. Why then, he reminded them, was it so investible to believe that metal. fiving flesh-any object-could not be reformed by summoring the protons and electrons, of which such swatter

had been composed, and forcing them to group themselves as in the first place? Hardly had he spoken when, by seemingly magical means, the cube of metal, the bean of food, the bird were

once again before him-conjured from nothingness. A deafering year of approbation and applante greated his demonstration and drowned his next words. When order and silence had been restored, he made his meet actonishing statement of all. Not only could an object be restored, rebuilt from its original protons and electrens, but he informed the amused people is could be rebuilt in a totally different locality from that in which it had been disinterrated. And to prove this incredible statement, he proceeded to cause the three objects to van-

dred feet distant

The people by this time were beyond expressing their wonder. But still more astonishing things were to be vouchsafed them. "My discourry," observed Kestly, "will be the means of solving that ages-old problem of making a visit to Soari. Recause my friends whereas matter, as we know it, may not travel through space by any known means-and if it were possible for it to do so ages would be required for it to traverse such a Tuppu as acceptates as from Smari-the constituent electrons and protous of matter can traverse space unharmed and with such extreme speed that they may be said to travel instantaneously. Hence an object may be reduced to its free quanta or portions here on Sonko-Huara and within an inconceivable short time afterwards they may be re-

where. Distance, space has no effect mon them. Ah.

ish, and before you have realized it has gone, it will be in its original form approachers mean the surface of Susti. But--- " with a hearh, "of course it mirly be beneath the waters of that planet, and countly, of course, you could not see such a small object on distant Suari, and hence I could not verve my claims. But"-his tones were so impressive, so expand that everyone associted broathleasty for his next words-"but," he repeated, "so sure am I of my deductions, so convinced that my reasoring is correct, that I plan to test the matter on myself. Tomorrow I shall cause myself to be disintegrated, and-if all rors well-shall cause myself to be reassen. bled upon Suari. In other words, I shall be transported contex as a horly of matter live as countless triffices of electronic and vertonic units-through forty million Tuppes of space and will find myself in material form

you ask, hour do I know this? By reasoning, by logic,

by the unpherable laws of the universe" he exclaimed

"I can assure you that I can make this metallic cube van-

"Of course," he smiled, "I run a slight risk. I, like the metallic cube, might be reassembled in the water. I misht be reformed in some other equally unpleasant and final situation. But that is a chance I must take. The proteise of the adventure is worth risks. Personally, however, I do not foresee any such difficulties. My experiments have proved to my own satisfaction that I can cause an object, reduced to its constituent electrons and protons, to form again within a very restricted area, predeterminal by myself. I have selected the area on Spariwhere, if all goes well, I shall be reformed. It is a root that is somewhat remote from the stratge collections of structures, which we assume to be refuges of the Susrians, and in an area that-out having presented the alternating colors indicating the presence of living beingsis, we assume, minhabited. I do not -be smiled-"particularly desire to appear suddenly test as if by some supernatural means in the immediate vicinity of a Sunrian or of several Suprians. We may feel fairly certain

therefore as superstitious and as reachly startled as were our ewn succestors in the remote past when they, too, depended upon the cultivation of the soil for their hyelihood. I might be streek down-even decoured by the creatures before I had an opportunity to make my friendly intentions and my physical actuality understood. Morower, as we have no conception of the physical pecollarities of the inhabitants of Suari, I might, and probably weekl, appear as a strange, biggire and monstrous creature to them. Naturally we assume that, as Soari is many times the bulk of Serko-Huarz, its inhalitants will be proportionately pigantic, and hence I would be completely at their mercy "But"-with a sirb-"I shall take the risks. My

from our observations and studies that they are a primi-

tive, backward and not over-intelligent lot, and probably

greatest fear is that I may not find it possible to return to Sonko-Finana. Conditions on Smari may preclude the possibility of my reversing the reports by which I leave here and reappear on Seari. Naturally I shall take my

instruments with me, but atmospheric, electrical, gravitational-a thousand conditions-way interfere with their proper speration on that planet. However, we have no reason to think that such conditions are not very simihe to our own. The examinations and tests we have been able to make convence us of that. So, my friends assembled in the original material form on Smari or elseand fellow Sorko-Huarans, tomorrow at the time of Kora-Ma, when Suari is nearest to us in its orbit, I shall my loss will amount to little, whereas if I do, I shall have learned the truth of our neighboring planes.

ESPI had knot his word. In sight of all, at the hour K ESPI had kept his word. In again or a care well and, of Kora-Ma, he had bade the public farewell and, an instant later, he and his compact matraments had van-

tshed before their ayra. And now, three Chulous after that dramatic disappearance, Kespi-Nanay had returned! Micchin-Tay had been the first to see him. The old fellow had been anspecting the local vitamin plant near Ir-Clus when a slight

sound had attracted birn, and wheeling about, he saw Kestri-Namey standing almost by his side. But as fear fright, superstition and the sensation of being startled had, ages before, been lost to the Sonko-Huarans, Micthu-Tay had merely expressed mild astonishment, and instantly had sent the news flying throughout the planet by means of the thought disseminator, which he, like Yes, Kespi-Namy had unquestionably returned. He

had altered in no way, and he declared that he had been on Suari for three Chukitis; moreover he would publicly relate all his experiences in the Muru-Ti, so that all the inhabitants of the planet might, if they so desired, both see and hear him, for the Muru-Ti or public auditorium was emirged with the vision-disseminators as well as the audio-extensors that rendered him both visible and audible to all on the planet, who cared to adjust their instruments for the purpose

## CHAPTER II First Impressions

EVER in the historic true of Sonko-Hunra had there been greater, more wide-spread interest and expectation about your caused by Konsi-Manual expectation than were caused by Keepi-Nanny's amountment. At last, after area of sympless of studies, of deductions, none of which had answered the negatic, the truth of Sunri and its desirens would be earned. No one doubted for a moment that Keeni had actually visited the other planet. His demonstrations, there years earlier, had removed all doubts as to his claim, and while everyone had long since esene to the conclusion that he had either failed to restorislise on Sunri or, having materialized thereon, bad been de-

strough or had been applie to return, the fact that he had returned convinced them that his amount undertaking had been a complete success. A universal holiday had been amounteed, to continue until Kespi had completed his narrative. But this was really superfluous, for no one would have attended to his or her deties anyway and, moreover, the Apus and Amautus, even the Tarancas, could be counted on to be present to hear and see the returned internlameters wanderer, and without them the public would have been

as beloless and as futile in accomplishment as on and without its antennoe. Hence practically every being on Sonko-Huara pave undivided attention to Kespi-Narray when he entered the great auditorium of Muru-Ti and, seating himself between the Amount-Ka and the Apu-linki, proceeded to tell his fellow Sonko-Huarans of his amazing and almost incredible discoveries and experiences on Sunci. And often, as he spoke, his listeners unconsciously and into see some of the strange beings or murvelous sights that Kesni-Narroy was describing. "As you all know." he began. "I caused my material body, together with my Of that disruption of my protonse and electronic compotent parts, or of my instantaneous fashe through smoot I have no recollections. I have a dim memory, like that of an exasive dream, of strange sensations, of whirling madly like a bit of dust. But my next actual concrete sensation, after I turned on my disintegrating and prosecting device, was one of standing in a strange place. I felt so vatural, so precisely as if pechtur had harmoned that, for a florting moment, I feared nothing had hapmy surroundines ressured me. Nothing was familiar. Never had I integrined such a spot. I was standing on a far-reaching area of meky sand. Above me was the blue sky, and across it stretched masses of the same white vapor we have seen so often about Stari. Also, there

in the sky, was Quilla, but appearing very small and far

voluntarily planted, half-fearfully, at the creat colden

hendschere of Soari in the sky, as if actually expecting

"On one side rose high, bare mountains, on the other the plain stretched to the horizon, and within a short distance of where I stood I saw an amoving sight. There, staring at me, enrigently but apparently unafraid, and not even surprised, were a number of the inhabitants of the land. Never had I seen such impossible construes. No Sonico-Huaran imprination could have remorised of such beings, and even if I describe them to you, my friends. you cannot picture there to yourselves. They were broads or black, shaggy-slouned and stood on four legs. Their necks were long, thin and bore elongated heads with immense ears and large dark eyes. They appeared intellipost, and indrine that they must be more intelligent than we of Sorko-Huara had thought, I addressed them. They evidently beard my words, for they moved their ears, but they made no reply. Of course I was not surprised. I had hardly expected that the Suarians would understand our lenguage. So I made signals, but the Suarians shound to signs of understanding

"They appeared peaceful and quite harmless, so cautiously I approached them. I was quite close to them when they turned abrundy and moved of Fyidestly they were suspicious of me, and desiring to let them know I intended no harm, I spoke again. This time they termed about and took a few steps in my direction. I was delighted. I felt that they must understand my tones, even if not the meaning of my words

"Then a most amazing thing hoppened. Another creature appeared from behind a rock. He was much smaller than the first inhabitants and he stood upon two legs! Ah, I know you will find it hard to credit that statement, but it is the truth. And you can find it so more difficult to believe, as I tell it, than I found it, as I saw it. A living intelligent being on two feet like a bird, and other living intelligent beings on four feet! Obviously we had never pressed the truth. Suari was inhabited by two forms of beings, and I wondered if it could be not sible both were the same species-if one were male, the other female or if one was the voucer of the other. But the two-lessed creature differed in every respect from those of four legs. He, two, I noticed, possessed four limbs but he stood on but two and used the other two for grasping objects, as we use our monthers, whereas the

creatures on four legs possessed no limbs for grasping.

Moreover, the two-leaved being was red in color, his skin appeared to hung in loose folds from his neck, and ver his limbs were of a different house color and of a distinct texture. Neither was his neck long nor his head alongsted. On the contrary, he had scarcely now his ears were deformed until they were accreely more than orifices; he had no horns; his even were but two in being covered with a rough wool or fur; and his mouth showed no tusks.

"He stored at me for a space and then spake, and to my astonishment I found I could comprehend his words even though they were different from our own. I gathered that he asked who I was and whence I come. So I probed that my name was Kerni-Nanay and that I came from Sonko-Hunra. His mouth widened in a meet remarkable manner; he appeared to understand that all this time I was filled with practishment. He did not appear to be terrified or even amazed at my annearsuce, as I had expected he would be at seeing for the first time a visitor from another sphere. Surely, I thought. my form-I elasted down at myself and smoot in other amazement. I was not myself. I had but two legs, two arms! Half-fearfully I raised my hand to my head. My horns had vanished, my soft nepdant ears had disanpeared, my magnificent tasks no longer protruded from my line my tectocular auteurae were missing! For met scales, covered my bend, my engs were mere holes; in short I was the exact counterport of the two-legged creature before me. I was dambfounded. I feet as if in a dream. Then suddenly, I understood. The ensurinment electrons of my being, when reassembled with my protons upon Suari, had produced my material body in the

puny, underdeveloped, physically imperfect beings as the creature before me (and myself) controlled the combinforms. No doubt, I decided, were a Suarian to be transnorted to Sorkou-House by the methods I had used by would be materialized in the form of a Senha-Harris. Bug I was thankful that I had assumed the form of the two-lessed inhabitant rather than that of the beings with four logs, who-chough they appeared far more intelligent-seesed dumb, for as yet they had attresed no sound. I was assonished also that I could converse with the strange creature of the two legs. For a space I thought that cossibly the same laws and conditions they had so altered my body to a Suzrian form had affected words the other being used were so familiar, on nearly identical with those of my own tongue. I east aside than theory. By some amazing coincidence, or for some unknown reason which I might yet discover, there was a very close relationship between the two linerances.

form of a Sunrism.

"BUT my speculations on such matters were inter-rupted by the appearance of two more beings. One was precisely like the first two-legged being, the other was quite different. The bend was similar, but the colors of the strangely loose skin were brilliant and the creature accounted to have no legs, the hody extending in a solid mass to within a short distance of the ground.

that appeared to move back and forth under the solid body in a most america manner. It was not until much later that I learned that this being was the female of the others and that it actually moursued less which were concealed by artificial layers of skin that the Sparisms call "ciothea." In fact, I found to my astonishment that all the loose, bright-colored coverings I had seen were artificial and that the true skin fitted the body closely and was very smooth, soft and pleasing in shade, although, as I shall explain, the tist ranged from a very dark, blackish-brown to almost nore white, a truly remarkable condition. It was also, I learned, considered very wrong

and a proof of barbarism to appear without the artificial sum over one's body, and the beings I first met. stared at me and ottered strange sounds with their mouths wifely open, became I was not provided with such coverings. Presently, however, the creature who I found later was the female spoke to one of the others who pulled a portion of the coverings from his own person and placed it over use. The others added more pieces until I was covered similarly to themselves. To me these things were most uncomfortable, feeling very rough and irritating to my body, and I would have liked to have cast them off. But I wished to remain on friendly terms with the strange beings and (at the time) thirding it was perhaps a ring or ceremony inducative of friendship, I sore the discomfeet. Why these beings of States should have developed such habits is beyond me. Their hother, ugly and deformed as they were, were far more symmetrical and admirable without the artificial coverings, that some such protection was required for the creatures' bothes, their sleins being most tender and easily injured. not being guarded like our own by strong amics that are replaced by new growths when injured. In fact, in-"It was a contingency I had not foreseen: yet, now I juries which we would consider slight often caused the considered it, it arranged perfectly natural. The conditotal disubility or death of these Sugrians, for they are so tions of Sunri that had resulted in the molding of such low in the scale of nature and so primitive in their development, that they cannot replace even a lost appendage or buth with new growths like purselyes. Morrower, shift ough the variations in their climate are not as great as on Sonko-Huyra, yet as these miserable beings do not after their natural bodies to suit conditions, but remain al-

ing been covered with the objects, as I have stated and thus made to annear even more like the three creatures they seemed to be more friendly, and one of them did a most assounding thing. He produced a petriliar object which he inserted in his mouth. Then, to my unbounded astonishment, he magically caused fire to spring into being in his hand, and placing the flame asserts the obsect in his mouth, he breathed in the fire and emitted smoke from his postrils. Never would I have believed such a feat nessible had I not witnessed it with my own even, yet the others appeared not to be surprised. In fact they also senduced their own fromwarbless and soon all three were breathing fire. I noticed, however, that the four-legged beings did not do so, which convinced me that they were the superior beings and that the others were probably servants or inferiors. Yet this thousand troubled me, for in that case I had been reformed on Suzzi not as the superior but as the inferior type, which would indicate that the Sonko-Haurans were inferior to This was the more remarkable as the being possessed free the Searians Bot I had little time to dwell on this, for

ways the same, they are, perforce, conveiled to arised

themselves to the weather by varying the artificial skins

"But to return to the strange beings I first met. Hau-

or 'clothing'

one of the two-legged consures was offering me a firemation. I cleve host in herers at the thought of breathment of the constraints of the constraints of the contraction of the constraints of the constraints of the the feeling times to every series to relative in an immortal all my compared and photed the matches in any light. To my supplies there was no fare now but, and light to my supplies there was no fare now but, and one trappearing, though it consults not except and closely sensewher. Obviously, I contributed, this breathing of minds was a correcting, relating inclosed or fined-ligh, minds was a correcting, relating inclosed or fined-ligh,

shough I savetully frestled in snokes, the scenation was one trupbensari, although it extend on to cough and cubes one trupbensari, although it extend on the cough in small was a circumsty, produced the cough cough small was a circumsty, produced the cough and cube for perseasity the three land sinch them endering, as I do mile, without as for as I could decremine having asconspilated anything. But, I thought, if this strange consont is surfered among the Stantinus (as I found later it was) and if the planter was thickly inhabited, for expletion and the specific products of the cought planting and the specific products of the cought "Having model debt smole corrows," the three most "Having model the smole corrows, the three most "Having model the smole corrows," the three most "Having model the smole corrows, the three most "Having model the smole corrows," the three most "Having model the smole corrows, the three most "Having model the smole corrows," the three most produced that the contract of the contract "Having model the smole corrows," the three most produced that the contract "Having model the smole corrows, the three most produced the contract "Having model the smole corrows," the three most produced the contract "Having model the smole corrows, the three most produced the contract "Having model the smole corrows," the three most produced the smole corrows, the three most produced the correct produced the corrows and the contract produced the correct produced the correct

raising made to strong correlation, and under the form where they had been cented, and involving me to accommodate for the control of the control, the four-legged beats moved, the four-legged beats moved with them. In fact, the two-legged centures appeared to command the obselience of the superari four-legged centuress, and though the latter were for larger and stronger than though the latter were for larger and stronger than though the latter were for larger and stronger than though the latter with red to use get famen ourself, or the control of the cont

feel a bit casier, for it proved that the feerm I had assemed use that of the superior beings. See not also assemed use that of the superior beings. See not assemed that the superior being the superior b

selves upon Suari-perhaps the rulers of the plane! "I turned to one of the two-legged creatures and asked him. For a moment he seemed succled. Then he replied that the figure on the stone had been there always, that in nost ages it had been adored by his operators and recorded as a god. I asked him if similar beings lived near and at that he and his companions made strange believing sounds and thele mounts occured mobil their short mickes teeth were excosed, and they said there were no such creatures in existence, even if there ever had been in the past. I told them they were note wrong; that upon my planet all beings were of that sort and that I myself was the same when on Sonice-Huara. They regarded me with most peculiar expressions, obviously with unbelief, and presently again gave way to their strange sounds, which I may as well embris were their indications of derision and hilarity. Evidently

they chought my words were a great joke.

"A S we continued on our way, my mind was buy
wondering if there were too Section-Hamaru on
Sunit, how could the inhabitants ages before have been
familiar with the appearance of our race? Than I recalled the ancient Regard of our people, wherein it is teld
a great Apa mand Planks produced made, and so energy
his estimes, flow with his followers from Sechio-Hamaand vanished foreers. Way in two cognities that there was

have reached Sunti? I do not know, but throughout the portion of Suari where first I arrived I found many images and statues of the Sonko-Huszun forms, and in the traditions of the people, there was a being they called Pachak. But I had so many other strange and astonishme things to interest me that I gave little thought to each speculations. We soon came to a doep valley and there the brown earth was hidden under neh green, and water flowed in casals as it does on Senko-Hunza. But the rands were tiny affairs and the green was, as we have long ago surmised, the color of the vegetation of Suari. In the valley also, was the collection of structures wherein the Suzrians dwelt, for incredible as it may seem, these beings dwell in cubicles thosely pleand in groups and herd together like sworms of insects. Their strange reasons for so doing I tearned later and I will leave the explanation until I speak of the larger groups of structures that I visited subscructuly

truth in the tale and that Pakak and his follows much

"In this first group were hardes of the two-legged creature, miss, lemiks and young, but to two exactly, allike, for not only do the Suariass way individually, but, as I found that, where are many near of thom, varying in other, in size and in overy respect, even as to intiffer general ordinary—all working at two-purposes and content—all working at two-purposes and content—all working at two-purposes and content you wished all wave of one color or enearly so and of one tree, although their artificial skins warned in color and form.

"Also, to my amazement, I discovered that the fourlegged beasts were not artificially covered, but that the shaggy coverings actually grew upon them, yet they were inferior creatures and more shows of the two-leaved beings. More surprising still, I found that these were not the only shows. There were gunt creatures with horns upon their heads; there were smaller beings with unnesselv longe ears and big heads that served the twolegged erestures as beasts of burden; there were still smaller four-legged Suarians that possessed sharp teeth and that appeared savage and uttered sharp berking sounds when strongers approached, but were docile with those they knew; and there were many other four-learned things as well as hosts of birds larger than the Pileon All of these I learned were kept in captivity by the twolegged beings and were forced to labor for them, which was must strange, for meny were superior in intelligence and in senses to their stuped and buckward mosters. Although you may not believe it, yet it is a fact that the two-legged inhobitants of Suari-men and women as they are colled-are so deficient in sense development that they carnet see sount nor sound; they exernet hear light nor scent, and they cannot small sound nor light. Their eyes, of which they have but two, are used only for sering that which is the result of light waves. Their ears, which are more boles in their heads, are surful only in deterring scend vibrations, and their notes which also are holes in their heads, can only detect odors. Moreover, being thus deficient and unable to use their three sense organs in unison or to substantiate one another, the Sunriana are banercably deficient in sight, bearing and scent. Many of their captive creatures are far superior to them in these respects, and it is a most amusing fact that the se-called superice beings actually keep the so-called inferior creatures (especially those with the shorp teeth and bark-

ing sounds) because the latter possess keener sight, hear-

ing and scent than their masters and bence serve as

additional ears, noses and eyes and ware their masters

to intary events aim perio or winos outerwate tray when be ignorem. Any officer and the form of a Co-Colon, I was to a great extend life them, the in say train and my smars I had not demand, and though the alternation in the structure of my eyes, ears and nonrendered see is sensitive than normally not though its consideration of the control of the control of the period of the control of the control of the colon of the period of the colon of the colon of the colon of the colon of the country through that the Sarairois could nor Far exemple, I was pours that the varous fore-larged corretters were concerning among themselve, and while

I could not understand their languages, it proved how departent and undersided were the two-legated people, for in all my travels I found none who could hear the votice of the four-legal entersive base they convenied to the people of the state of the state of the three beings I faint set on the plain, I found many of the fierables performing mysterious rises over fires. As that I I though that acticines were being effort, as you may judge of any automations when I discussed that they could be the properties of the properties of the people of the state of the people of the people of the people of the people of the state of the people of the people of the people of the people of the state of the people of the people of the people of the people of the state of the people of the state of the people of the

retailly were proposing food! To these benights theselved of strongly design annumence in his miss disjoin in the course of the strongly annumence in his miss disjoin in food. They labor and strive and live with the one of food, and the strong the strongly and the strongly and

"I MAGINE, laboring to prepare the soil, sowing seeds, raising vogetation and devouring the reaching plants in order to supply their bodies with the elements that are derived from the air, earth and water by the plants? And imagine, if you can, the still more roundabout, clemay and wasteful method of rearing such plants, feeding them to beasts and then killing the beasts in order to extract the few atoms of sustenance needed, and which have been eathered by means of the plants and tempered to the flesh of the heasts! And the beasts' enreases, the waster material of the crops, are used to supply the elements for more plants and more brasts to provide more susterrorce for these Suarious in a vicious, never-entire circle. You would be absolutely assounded were I to describe what and how those beings est. So great is the waste material in all they call food that one family is forced to devour daily material whose balk would equal the amount of concentrated foods required to feed our entire population? Though they benefully declare themselves intelligent, highly civilized beings, even sciencists. energy are distributed about them and may be extracted directly and with little effort from their servemdirers. without being put through the ciumsy extraction process of olants, firsh and fourt. Though their more learned members realize that all energy and power is derived from the sun, yet never have they learned how to emolor the energy and power of the sun directly. Instead they follow the same roundshour methods as in producing

Thisy burn materials, release the stored energy, water the greater part of it by the employment of crude machanisms, espeure and control a small percentage of the energy thry have released, and by a memphismed, involved method make use of this small reasoning portion of the energy for their purposes.

"I was simply apposled or the terrific, criminal waste

everywhere. Fortunate indeed are the Susriaus in possessing a large planet still young and rich in its natural resources and elements. Yet even so the waste is so sharenfury that, within a short time the Surriva will have exhausted the life essentials of their planet and will perish miserably from their own lack of foresight, if they do not advance and improve intellectually to the point couched by our forefathers countless acus aco. But all these things I learned little by little as I moved about. for in that first nest of the beings I learned very little first encountered were a very inferior and lackward lot. for unlike ourselves, all of whom are given the same intelligence, the same senses, the identical bodily powers. the decisess of Suari are of immunerable gracks of intrilligence, of heddy development and of sense acutenest. Partially these variations are due to race partly they are due to climate, partly to surroundings, but yers largely to the fact that the Suzrians, no matter of what race, learn only by example, by being taught by others. They have no instructive knowledge and the offspring of the most intelligent and advanced, if reared apart or amid the inferior members of the population, reach maturity as stand and backward as the offspring of those shout them. On the other hand, the young of interior and unlesselligent beings, if seared and taught by those of the superior chears, may and often do, excel their mentors in attainmenda

There has been some effort made to bring about a general and misorroal improvement of the population by a system of education, but it has assented to very halle as far as I could judge by even careful study and

observation.

"Magaled with the other strange and pseudostical limiters of these beings is a curious feeling of independence, a choice for personal Bioery that, countriesing the conditions that exist, is most amusing. Though robbed ecospherely of all real freedom, completely subscription to rules, a bester, law maters and countries centries to rules. Settler, law maters and countries centries.

members of their near; content to be ordered about, to be demand to assertifie with them and the destroy others at the formed to assertifie with them and the destroy others at the and with whose querrich they have no concern, yet they formed refuture to limit to vary inservation that is for the first order to be a second to the contract of the deer purps by day appointed softwards, the requirtion of their local in outgine and questive, the expentation of their local incurred to the contract of the softward of the contract of the softwards of the softward of the contract of the softwards of the softward of the contract of the softwards of the softwards of the contract of the softwards of the softwards of the contract of the softwards of the to be the most admirable and benefited reliques for the "The I may applied to be for the contract of the contract of the "The I may applied to be for the contract of the contract of the "The I may applied to be for the contract of the property of the contract of the c

All these matters I learned long after I left the height I first net and after I had found and mingled with the white Searchus who obtain—and perlops rightfully—be the most intelligent and progressive of the inhabitants of the planet which they call the 'terril' or the 'world' and who call Southe-Haura by the name of 'Mario-Haura by the and souther-Haura by the name of 'Mario-Haura by the progression of the same of 'Mario-Haura by the name of 'Mario-Haura' by the name of '

## The Monsters of Susri NE of the earliest discoveries I made was that all

Suzrians-or as they call themselves, human beings' were not of the same race and that no language was universal to all. This came about through the arrival of a remarkable being in the community where I had first arrived. He same across the plain a algoritic four-leared creature with two hodies and heads, the most territying mouster it is possible to imagine. One body was rough, harry, immense, with a heavy neck friends with long heir, and bearing a great beny head with pointed ears, staring eyes, sporting nestrils and great vellow teeth. The other body rescalded that of the twobeyond belong but preparted from the targer body's back It beer two arms and a small round head with features somewhat like those of the men I had seen, but covered with dark fur, and with the skin, where it showed, a pe-culiar pixle. The monster come rushing orwards and to my amazement the beings of the stare showed un four nor all they endeaves to the from the fun; and destroy-

"Hod I not been of Sonko-Russa I should have sought swiftly in flight, though so swift was the pace of the thior that it would have been boreless. Even as it was I felt dread, yet I stood my ground, and was still more arraged to observe that the four-leaved things, even those not dash away in terror. On the contrary they ron snotping at the mosster who rould no attempt to destroy a halt and I stared, unable to credit my senses, for before any wondering eyes the monster separated into two portions. The smaller body with its head broke away from the other! It sprang to the ground, and to my utter amagement I discovered that it was a sergerate being, a creature with two legs, in form precisely like tinet oresture, a four-legged being sulfac anything I had neer. The two-learned being spoke in an unknown tomore and at his bidding the beings about fied to obey him They seized his four-legged companion, who seemed strangely docile for such a monster, and took him off: they led the two-logged being to a cubicle, and they harried to bring him food and drink. Here indeed was a strange harmering. He seemed scorcely different from the others, he were similar coverines upon his head and bade and feet, and he appeared no name intelligent than

those who treated him like a superior being.
"Way, I wondered, was he so repreded? I questioned one of the brings, who by now had come to regard me as one of themselves, and he looked at me with amorement. The being who had arrived upon the monster over a superior being. I was told, for he was white. Auxious converse with the 'white,' but to my summise he made no regly and seemed not to understand my words. I felt I had been decrived, for he appeared most unintelligent and made lead course sounds through the fur over his mouth. But the others told me that the whites evolve another language, thus, in order to converse with those it was necessary to acquire that language. How strange,

less thoughts!

"That was my first meeting with a white Surrism Learning there were many of the race not far distant that they were even more numerous than those beings of brown slein, and being told they were superior and ruled the whole of Suzzi, I devoted myself to acquiring a knowledge of their tongue from one of my friends With my senses and mind so far above those of the Sunrlans, I found this an easy task and very soon knew all the being could teach me. By this time, however, the first white Starlan had departed, having again joined benself with his four-legged creature. I learned in which direction I must travel to reach the snot where the whites dwelt and I set forth

"In my Souko-Hunran form, with my many lees and limbs and my powerful body I would have found the journey trilling, but I possessed the puny form of the Suzrims and the two feet, all that belowed to it, soon grew weary. To rest them I seated myself, and presently, in the distance, I beheld a cloud of dust. It onproached nearer and I saw it was caused by a terrible frightful, gigantic monster, beside which the creature of the white Starish was nothing. It emitted terrifying mars and exceeds it nonsecond immense adaring them eyes, and it breathed fire and smoke.

"It approached with annuling speed, and hopelessly I was too weary to run and the horrible, screaming thing was almost upon me. How can I describe the thoughtthat flashed through my brain? How little had I dreamed that there would be so many forms, such terrifying creatures upon Sauri! No wonder the belong I had mee had remained primitive, nechole, had not developed any intelligence, when such monsters as that realing on me

"Had I had time I would have adjusted my instruments, would have chused my body to distracgrate and appear charabers. Bet I had no tiese. And yet, so swift are thoughts, that I found myself morreling that I had not thought to make the of my device in order to reach the piece of the white Suarians, instead of wearily walking there. Beg it was too late, the deventaging mosser was upon me. I shook with terror, L a Series-Heartn, but you must recall that I was, bodily, a Smarlan. I felt my end led creps, as with a screech and a rous the girst beast came to a helt close to where I stood Even at a standatill it was turrifying. Yet I scarcely gianced at it, for my eyes were fixed upon something

"Evidently be was the monator's master. He held it under his control, ignt as the other white had controlled his monster. I breathed more freely, remembering the other. If the white being were friendly, he would not allow his revenous creature to destroy me and all might be well. And I noticed now that the monuter itself anpeared culte docile, quite peaceful, storing fixedly should meticuless. No worder, I thought, the brown before regard these whites as amerior, if they can thus master such herrifying monsters. And as the white appeared friendly I suthered courage. Presently he speke, using the torsee I had barned and asking me whither I was going and if I was not weary. I recited that I was room to where I might find the whites and that my feet were

how different from Sonko-Huara where all sreak the same tongue, where those attuned may converse by word-"For a moment he appeared puzzled, as if not understanding my newly acquired words. Then he gave went

"He assured me, however, that the moroter was harmless and 'asste,' and with misgivings, but desiring to prove a Senho-Hueran knows no fear, I mounted the creature's back. Judge of my uter bealthtement when, as I did so, I discovered that the thing was no living creature but a marking!

"The real intent it was it marken; we were making account picture and though the motion was except and unglessare compared to that of our projection, yet 1 can white a work for appeared to the treat, and I wondered if the monatrons occurse on which the first white hand white a work for appeared to the I revenue, and I wondered if the monatrons occurse on which the first white white work of the picture is well as the picture is the picture of the picture is the picture in the picture in the picture is the picture in the picture is the picture in the picture in the picture in the picture is the picture in the picture in the picture in the picture is the picture in the picture in the picture in the picture in the picture is the picture in the pictur

"SOON we reached the place of the whites. Here were many of the cultures, such as I had soon and in which fived browns. Between these we rushed on and specially came to more numerous and herver colorles. some of immense size, and with where everywhere. The machine stooped and I descended to the ground, as did the white being. I thanked him fatingly, and left him, but soon I regretted I had done so, for I found myself at a total loss as to how to proceed. Everything stemed confusion. Everyone was nucling about everywhere were the great mochines, such as the one in which I had come. Also I felt the need of nourishment, but I knew not where to seek austroance. During my life with the browns I had learned to cut as they did, and presently seeing a brown female seated beside such food, I drew near and asked for sustemance. She demanded that I should pay for it. At the time I knew not her meaning and was about to move on, when I moticed a brown being ston beside the female and give into her hand some pieces of bright metal, whereenen she gave him food

"It was a strange and interesting transactions. When sould the source when the sould be sould be sound the sound the sound the sound below to so the sound below the stranger race and at most to the sound to the stranger race and speculations. As only the sound to the stranger race and speculations. As only the sound to the sound to the stranger race and speculations. As only the sound to the stranger race and speculations are sound to the stranger race and speculation and the stranger of the sound to the stranger of the sound to the stranger of the sound to the stranger of the strang

I are in mar, and many say toughe of the between, I soled her what use she made of the metal.

"She gazed at me in astonishment and then replied that also purchased food with it. But she had feed, I remitted her. Yet did she iresist that the metal was used to secure food, which plu gaze in exchange for more metal. prehamble to me, yet I found that in this marvelurs and preposterous manner do all the Sumision live and that their whole lives are made up of thus acquiring his or most which they give winto elsens in exchange for food and other things, which in turn are given to others for "Those who have nothing to give, give that that he for the same lists of metal, yet the sectal is of to see in them."

into the coverings for their skins. Yet ever, escerially among the winter, are all craselessly, throughout their lives striving, tailing, even fighting and killing one another, to acquire the hits of metal, and even him of names which cass ceaselessly from hand to hand. And yet I could not find that in the end there was any reason for it. Those who had acquired vast amounts of the metal and paper were no stronger, no healthier, no superior to those who had little. To be sure, they dwelt in larger exhicles, they moved about in the markings I have described and in machines of other sorts; they covered themselves with more colorful and voluminous artificial skins, but they deyoured the same food-the flesh of murdered, fourfooted beings, the embeyes of hirds and the plant omnethe -that were devoured by those who had the least of the metal. And strangely enough, those who secured the

most of the covered stuff were not by any means the most

advenced or intelligent. Often were they the lowest,

most backward and most stopid of all the Suarizons.

While others who were intelligent, who were advanced, who were in fact scientists and should have been honored

and followed, had Ettle or none of the metal and "Of course I did not learn all this while warehing the brown fengale with the food. Rother, my houses again chiming my attention, I soled her how it was possible to score the metal with which to obtain the food I craved, and she informed me I must exchange agmething I possessed for metal or must labor for it. As I stood there wondering what I might do to obtain food, the white being of the machine appeared, and seging me standing before the female, and perhaps realizing gay olight, he came forward and handed me a piece of metal. Thanking him, I gave it to the female who gasped, told me to eat my fill of her food and then returned to me more nices of metal-together with some of paper-than I had given ber. This was the most astonishing thing of all; that she should refuse me food until I mave her the metal and then, when I had done so and had taken the food, she

"But such I found was the custom of these strange deniums of Suari. To them certain pieces of metal and certain bits of paper have greater value than others and all things that are even for the metal or, as they call it. 'money' also have their values. For some much money is piven, for others little. Even a being's labor has its value and varies with different beings. And if the 'money' of great value is given for segnething of little value, then is money of little value given with the thins so that all may be equal. For a long time I could see no object exince and no manner of rurnous in all this bed in time I learned that each time the thing for which money was paid passed from one being to another, a prester value was placed mon it, so that each sine the being who received the money gained somewhat over what money he had given for it. Yet always in the end

whatsoever had been then gained was again given out

strange custom, ospecially with the welfac, the roace may the unless they follow it, and I rayself was ason obliged to do the stame. I had anught to give for money and I knew southing of Sourina labor. "For a time I was in a loss, mail by chance one day I saw a being in an open space, with many beings of all coless about him. He was causing objects to disappear

and to respect at his commend and for so doing was being given the money. So, standing near and adjusting my instrument. I so organized it as to cause both the objects and the money before him to varish and to be aroun money benceforth nor of God, for with one I could secase both by means of my device, which being beneath my coverings, attracted no notice, although great wonder agreene was barmed by my so deige, for the money that the food and the food would have been given for the money, and by removing both, nothing was lost. Also the money was of need given forth for other things, such as for a cubicle in which to dwell, for he observetion and by questions I learned that it was a law of the whites that no being could sleep except in one of the structures. That was a most structure things also mite post understanding. I, or any being, might walk about in the open air throughout the night. I might seat myself and remain as long as I saw in but I could not remore settl along within the credities of the neet of struc-

tures save within one of them. THERE were many other laws and rules and customs equally stronge, Though these belongs bothol-there being an abundance of water in Smeriyet save in the privacy of a tiny cubicle thry could not remove the artificial skins they called clothen in order to inths. Yet neither could they bothe in the corn air while thus covered. The thithes must be removed and others obsent over their skins before entering the water. And while there were large cools of water convenient to hand within the west, of buildings wherein the beings duelt, yet in these they could not bothe, but want on for a distance to certain waters afforted for the purpose. And though the coverings that they derived for the purpose of bathing were often beautiful, and revealed the most admirable partiens of the bodies, expecially of the females. not there were lynn coving that these coverious and less

serve deschiert, but meel te ditensied for others.
Alba, is was beit betrafte and even pusibilities, for a value of Alba, is was beit betrafte and even pusibilities, for a consistent pusibilities of the server approach to the was present describing the fermilies however approach to have a greet deal former fermion in their pepals. There exists the server of the se

the males rough mean election of dell and combine chades

"In their exhicles, or as they call these "houses," they do

the same. Fach being will strive to make his home distinct from all others wet in a way most all be able. And with all their boasted intelligence and culture-which is that of our ancestors of the times before our history beexpective percial in being unconfectable and unhealther by peschip together by thousands in these crowds of cubicles of every size. Often one will be erected upon another. Often they will be so small there is burely sense to move about. Often they are as dark and dismal as burrows in the earth, wer within them the beings live and no to yest tropple and labor and pine great sures in their money to be permitted to exist in such holes Though there is no limit to the open air and surshine, wer do they hide themselves owers in these woulds and metiny artificial suns of no value with which to have light And by some strange twist of their minds they will, at great trouble and labor and expense, bring bits of earth and plants and peretation within their elegions of houses. although on every side the land may be filled with count less thirty for more beautiful. Prop. wild birds than abound in the open air are held prisoners within these dwelling-places, and yet, at every occasion, the beings rush forth, and afoot or in their machines; leave the grouns of huddones they call Wities' and in great through fare into the outlying country for a day or a work or more and cry aloud and shout how wonderful it is, and dwell beguly and free and much conter and better in separate nests amid the verdure and sambline, which we of Soulo-Huara would give so much to have in such

constition as they exist on Spari "Why these beings should thus suffer I could never bearn fully, but in a way it is due to fear, for fear is ever clutching at the hearts and minds of the Suzrizos. In the past, energies were feared, and for protection the brings herded together and built about walls and dwellings casy to protect. But now, though at times there are quarrels and even wars among the belons of Souri, the clusters of buildings are not receipt, and in case of war would be of no avail. Yet the fear of being alone still abides in these beings, and fear of one kind or of another does them always. He who has living from he man never have more. He who has much force he more have what he has. He who is in rocal health fears illness and he who is ill fears he may never be in good health. No one is content; no one is softsfield and nearly all fear death. Yet do they torrot cleath scores of times each day. They plery in taking risks of health, of loss of life, of everything

"Why they cloud for what is all a requiry to me. They prices in other as and we sed formir-lifent, that the spirit wave due but nearly days from the highest form the region of the spirit wave due but nearly days from the highest in treather holy other hidrer that it goes to a son other plant, and must heleve that it goes to some spirit, and must heleve that it goes to some spirit, and must heleve that it goes to some spirit help the spirit has been a some spirit and the spirit has been a some spirit and the spirit has been a some spirit has been a some spirit and the spirit has been a some spirit and the spirit has been a some spirit and the spirit has been a spirit and the spirit has been a spirit and and the spirit has been a spirit has been a spirit and the spirit has been a spirit has been a spirit and the spirit has been a spirit has been a spirit and the spirit and the spi

the fear of usin, for they endure a hundred times the arous of death in order to avoid death. Mainly, I though it is both of faith in what they bold is their faith. There are never entire aure that their religion is the right one, that their spirits will be better off, which proves how much better it is to have but one faith for all, as do we of Senko-Huara. And yet, in suite of their dread of death for themselves, they regard the deaths of others quite athenia The arthenia destar decreas of desira fellows in a war over some petry trifles or to satisfy the muchinations of some men who avarationally desire to add to their power or their wealth. And they do not heaftate to not their fellows to death for the violation of certain lance which they themselves cooke. Through they thou constitute thereselves the indexs of their fellows and claim the right to take that, which they carmot give and cannot restore, yet on the other hand, they will not nermit one of the number to take his own life, when he desires death for any reason.

"A ND while they see fit to meddle in many, in fact, most affairs of their fellows, and to subject themselves to incurrecable ridiculous rules and regulations of no importance to thouselves or to any one else, we then awaid requisting and controlling the most important of all things the births of their offcoring and their receive "Unlike our young that are incubered artificially and under scientific rules, the offspring of the Suarians are here alive and each mother scars her own. Unfo expents are not only allowed to mate and to produce acree, instead of limiting the reproduction of the race to scientifically askerted currents, neither of whose is aware of the other's identity as with us, but they are permitted to year their own mitherettes to maturity. As a result, there is no steady wooding cert of the mentally and obsolealty you fit, nor a gradual innerconnect of the utule race. Moreover, the routy, weak, imbecile, cricaled and otherwise imperfect offspring are not only permitted to live, but are serbolously earned for, and curry offert in made to been them alive in spite of nature.

"As a result of this, no two are alike mentally, checkonly or in training, yet, when these stronge beings educace their infinitely varying offspring, they are treated as if all serre identical, as if all, like our own, had been scientifically and artificially produced, incutezed and reared. Three is no alternot to source and train the young according to their actitude or their spitability for certain careers. There is no such them as savine this young being has peculiarities to warrant his becoming a mechanic; this one should be an artist, and then reamfaring their education and training with that end in view, No all are not through the same craces of studies and the ultimate career of each is left to the parents or to the immature being's choice. In this, as in nearly all vital matters concerning these incorrect while in factor Supplement there is no system, no certainty; everything is left to

Control.

The young Strutint, who decides to become a science that, may become a post electric and the may be a failure of the science and the science of th

less of all. No being may take that which belongs to another, even though he he starring and the other has more food than he can use; even though he has perfiling and the other has much; even though he takes that which more than he needs from some other. If a below travepresses this low he is set apart in a cohicle by himself. and is given abundance of food and is carrol for, so that by his projekment he is remarked with that which he sought to obtain. Yet he could not be thus hensed and fed and provided for otherwise than by violating the law. But the being from whom the presessions have been taken receives nothing in return, nor is be who is set aport forced to return that which he took. And neither may the being who has been thus rebbed of what was his law baseds upon him who took it, nor take from him queby in return. So it would some that the violator of the law is a being take the fife of another being no matter what provocation he may have, for if he does, then the law may take his life. Even though the one whose life is taken by the being who has been wroused is of the most inferior claus and of no value to the community, whereas the being wronged is of the blackest and most legelbrens. yet the law demands that the valuable life be sucrificed. Yet may those who are favored, take lives as they may and enfler nothing "Access these beings there are certain ones whose daty in to see that the laws are not broken, we often they are

meny have been made in the past and so many are being

made each day, that not even those who make them can

remember them. For that reason they are preserved in

massive arriverses. And if those who make the laws are

ignorant of them, it is natural that the other beings, who

have no knowledge of what laws have been made, about

be quite unaware of them. As a result, everyone is con-

matter, for apparently most of the laws are made to no number. Yet there are certain laws that may not be

broken with immunity save by certain favored beings and

many of these second the most surrescensive and need-

to one that the laws one one holosts, yet often they are desired to be seen that the laws one one holosts, yet often they are determined to the control of t

In the marriage also, which is the mutting of the maleand the features of these strongs being, all it governed by chance in the same matter. Nother science sor laws enters into the beings choosing them musts, but when the beings choosing them musts, but when does not be being choosing them must be the does not be the being choosing the solution of the must be the solution of the chances, they may not do an welchoose the chance of the must be the protease. If them, chain to find that masses, they may not to make the solution of the solution of the form of the solution of the solut the laws this is the most often violated. Indeed, few beings there are who do not violate this strange has that courtols the brines' own storrochs, and in so violating the low, they support to usin much delight and niewere. Though you may find it hard to believe, yet they will go to great trouble and expend many pieces of metal in order to violate this law, not so much that they are destrous of imbibing the prescribed liquids, but to show their deriston of a law which they cannot to be made.

"For a long time after I had been fixing among the whites I marveled greatly at these beings remaining so primitive as to need laws which we of Souko-Henra shoudened pors are as worthless things and as rending only to corrupt the morals of officials. But most of all I marveled that, having paid beings to make the laws, and laboring to obtain the metal wherewith to pay others for enforcing them, they should desire to break them at every turn and should find delight in so doing. But having learned more of the whites' ways, and having som their amusements. I wondered no more, for I then saw clearly that each laws were made to provide a source of agrupement, or as they call it in their tongen a 'sport,' sometimes.

## Certain Traits Are Universal

DEFORE speaking of these amusements of the Susrant, I must tell you semething of shair strange characters and habits. Though they are so filled with concrit that they imagine themselves the superiors of all other races, even the superiors of all beings in the universe, and though they beast that they rule Sunri, yet do their females rule them, and the strongest submit to the mile of weak, illiterate, unintelligent beings. Still, in a way, the whitea do role Souri, for so loudy do they cry out to all that they are the livels of their planet, that the others are made to believe it to be the trith and so submit to their wills. And though due. ing may stay on Smari I lived for most of the time amidst these whites and mingled with all kinds, set never could I learn why they should be so equited in their

opinions of themselves.

"Of all the inhabitants of Souri, they are the most superficial, the most truficial, the most inconsequential, the most illorical and naradoxical. They are as aimiess in hordes of ants they scurry about, reshing made to save a minute of time, yet in the mints of this wild bustle they will stop and stare for hours upon some simple childish thing. Their lives are one ossueless round of toil, for so of one another that they must toil to live. But even when by toil they have enthered orone of the moral discs than they can use in their lives, yet do they continue to toll. out for a rest, for a chance to live withour these suffere Yet when they cease for a space to labor, they entertain thorselves by triling Even when, weary with the labor of day, they have a chance to rest, they spend the night resting about, each male with a female, in overst crowds. running and prancing over a floor, though they do not pool of toil, they will burry and cout for event distances in the hottest sun, leboring to strike a small elobule with a grooked stick, or perchance with their feet kirking an object about and fighting amongst themselves, or trying to outnote the boll. Always they are laboring. even lighting to certic something, even if by so doing nothing is gained. They strive and labor to outdo one another, and each took to win more of the metal diseathen the others, and they take error soy in watching two of their fellows struggle and fight with their hands until metal discs and buts of paper they prize so orgatly. "To these beings of Searl nothing seems to afford so

much pleasure and interest as for some one of them to centio some other one, yet it is a foolish and ridiculous thing, for always, as fast as one outdoes another, so, surely, another will outdo that one. They even force the four-footed beings to strive to ondo one another, and because these beings are more intelligent and are superior to the others, and will not waste their strength by foolishly laboring to surpass one another, the twolexced beings mount upon their backs and beat and force them to do their birding Often times too, these Sentines will remain for many

hours seated at tables and peasing hits of colored paper from hand to hand, and going without needed rest and siero in a mad attempt to ourdo one another in securing certain of the bits of soner. Many other strange ways do they have of occupying themselves, yet one of the stromest is that they will flork in ereat herds some costsion cubicles of large site, and will give up stores of the metal discs to gue at certain of their follows, both males and females, who standing upon a platform, do and my exactly the same things that these beings do such day. Morrover, when these beings cannot see their fellows thus repeating their actions and their words, they will flocic to other places wherein are pictures of beings doing the same things. These pictures were at first a great puzzle to me, for I thought that they were reality and were His unto our vision-disseminators, for they both moved and spoke. But soon I found thry were accomplished by means of machines, and though eleverly managed, were not real but merely images that were made to appear at will. Very often both the beings who appear upon the platforms, as well as the pictured beings, do and say things that are in violation of the laws, whereas those who watch show event pleasure and show aloud and strike their hands together in delicht, for so illorical are they that through they may make hwa and may purish those who transgross them, yet ever are they overjoyed to see the laws broken. Yet in this are they no more illorical than in many other ways. Thus while they will give

will they will gaze upon sights or will harken to some and because of these will seren and will find low in wwening, which led me to feel at times that these strange beings are all imbeciles "Yet they do most amoning things and perform feats that we of Sooks-Huara carnot coust. They can project their voices and all other sounds for vost distances through the air and it was these that we heard here in Souko-Huara, as I semmised), this being done by some means akin to the manner in which I transported myseli to Sunri and back. By devices which I do not fully comprehend even yet, the beings after the sounds to electronic forces, by a reversal of the process transform the forces

many discs to be delighted and made happy, they will

give an equal number to be made and, and of their own

into sounds, just as I may change a solid body into free electrons, and then may reform the free electrons to reproduce the original body. "And though they have never learned the secrets of

our vision-disseminators and audio-extensors nor of from spot to spot and may bear the voices and see the forms of others at great distances, and though they have not yet learned to draw all power, all sustenance and all that is needed for life directly from the sunshine and the atmosphere, yet they have devices that serve many perposes and that are unknown to us. Perchance, by the time their planet has been exhausted, as has Sorlen-Hears, and the Sparians have by necessity been forced to develop their intelligences and have cast saids the foolish and inconsequential things, and have learned that uniformity of purpose, thought and act is essential to existence, they may reach to a plane comparable to ours at this time. I have already told you of the strange muchines that rush over the earth and by means of which they move from place to place. In addition, they have other great machines that can move only upon metal rods

hid upon the earth, and they possess immerse projectorlike devices that fly through the air.
"Unlike are projectors that may remain poised at any height and which are operated by the atomic power, these draw their power from fuel hurned within them, and if hy chance the just je exhausted or if any occine

of the mechanism goes wrong, they crash to the ground and are destroyed. T is written in our histories that our encestors, some thousand Chelcitis in the past, used similar means for traveling, and so it is possible that a thousand Chakitis hence the Susrians may learn to make projectors. But Smri, being so much greater than Souke-Huara and hence with greater body-attraction, presents problems that we of Soriko-Huara do not face. Thus upon Suari there are, as all know, great bodies of water, and to cross these and to go from place to place separated by them, the beings use immense machines, corrying wast numbers of Suarians, that move swiftly upon the surface of the water and do not sink within it even though they are made of metal heavier than the water. This to as of Sonko-Huara seems more wonderful them would our reojectors or our vision-disseminators to the Starians, for we, having no great masses of water, and no need to cross such, know little of such matters, and in all things pertaining to water, the beings of Surri are in advance of us. Yet could I, even with my ignorance of such things, soo plainly that in all these matters to in everything else the Searians wests far more thon they use, and do meny things for the benefit of their own pride and pleasure rather than for the benefit of the race and posterity as a whole. Thus the structures in which they dwell and which, clustered together, form those spots that we of Scoko-Huara long ago recognized as made by intelligent beings, are often made of vast size and beauty, towering unto the skies, whereas for the purposes of the beings' lives and labors no beauty is required, and cubicles of no greater height than would accommodate the boings would serve as well. For that matter, such small structures, senerately placed, would serve better, and with the sunshine and the air would

greatly preserve the health of the dwellers within. Ver

to their self-oride and glory the beings will erect the

great structures and will nest them together by thousands.

thus sbutting off the sunshine and air and rendering their dwelling pieces as dark and neiscore as coverns in the earth. And the material that is needed to make such great structures would serve to make many thousand smaller cubicles for those beings who have not enough of the metal dises to obtain shelter. On the other hand, an commercial are the minds of these beings, so fixed on matters that result only in gain to themselves, so selfish in their attitude, that science is regarded with little respect and often with scorn. And those beings who have amassed great quantities of the metal they crave will give freely of what they have for such pleasures as then desire, but will bestow some upon those beings who drive in the mysteries of science and who devote their lives to the betterment of others hy studies and by writings. There are some few who will bestow their discs in this way, else all the Suarian scientists and those of great intelligence would succumb "Yet even the scientists are ever filled with the conceit

that possesses the two-legged inhabitants of Suari, and most of all, the whitea.

"Though they possess means of studying the planets, and have devoted much time to studying one own Sonke-

Huara, yet they know nothing in regard to them. Those signals that we of Sonko-Huara arranged to draw their eyes and to let them know that our planet was inhabited were such by those on Suari, yet they deemed them not signals-feeling assured no beings more intelligent than themselves could dwell here—that our signals were ber natural formations. And then to apprize whatever heings might dwell on Sonko-Hears that more intelligent brings inhabited Suari, they caused great numbers of Eights to be placed at picht-subjeb we cass-mentionless things carrying so message. And having reprected their voices into space and having received no response (for they studied to failed to acrange for regime and even failed to let us know they were striving to communicate with us) they decided that there were no intelligent beings. "So conceited are they and so filled with their own importance and the belief that they are looks not only of Smeri but of all the Universe, that they cannot conecive of any other form of intelligent beings. To them the deregges of Sonko-Huara or of any planer more be He themselves-with but two less and two arms, the same bodies, houls and features-or, in the minds of some few, perchance like certain four or six-legged creatures of Swari

"And nothing can convince them of the contrary, nor can they be correspond that an inhabitant of Soules-Husen could do what they cannot and visit another planet as I have done. For a long time after my arrival upon Scari I said nothing of who I was or whence I came. thinking it better to learn their ways and all regarding them, by mingling with them as one of their own kind And when, after having talked with their scientists and those credited with being the most intelligent, I learned how wast was their lenorance of Sonko-Huura, I smooth to set them right, none would listen to my words. In rain did I endmant to tell them of the true facts of how we of Sonko-Huara lived, of the customs and our ways, of how we obtained our power and our sustenance. of how our race was propagated and ever improved by science, and of how those strange marks, which they had thought were carely, were but the tracks south he our small areas of water as they were dramved across the surface of our planet by our two small satellites,

(Continued on page 371)

# Driving Power

By Miles J. Breuer, M.D.

Author of "The Men with the Stronge Head," "The Gostak Distins the Doshes," Etc.

NOR that the fernly entablished Buke planetary atom series to have neclected the Schridinger wave stam, who can specifically what are the pushibilities of interactionic power? Percent-day writers of circuitife feltium must need to active impossionation there also not quistly feltile intering, for perturbance of the series of the series of the series of the series of the theoretical things things they forceful will come to pass before their series are published. But "The Driving Powers," despite the fast that it is based on the Buckation, it will englished by "Gerest" and amounts for warrow it we published the Alle, Dr. Brener up will the found to have been reply, near day.

## Illustrated by WESSO

## Science and Living

"HEN Professor Grimss laid down his

work and decided to go home, be

cleanpoi into a different mun. It was
the a transformation from Dr. Jelyli
"Seven o'dedt. Getting dark. Time to quit," he
sighed with segret at laving to part with his apparatus.
He picked up nome paeces again, fitted them into the lay
archine, linger of awith; and again once insued reco-

All does while he meeted in that betweeness he was home elect full of embusiness. His nearly drove burder cour shorts and about, leaving them convered with colcufectors too abstrace for ordinary mortals; his forees and eyes searched busily among the leaves of his library; but especially, most of the time he havered swiftly, skilfully, devotedly all around and among that vast and complex stack of apparatus in one end of the bir room. He had as worth energy on the house waterfull whose year could just be heard through the wirefews and which some olied him with inexhaustable power for his experimental work in intra-otomic physics. His eyes shone brightly. and you could see that he thoroughly loved the work, Then came quitting time. A vacant, discouraged exforce. You would have thouse he had nothing size in the world to live for. He drooped like a lover driven from the side of his fair lady out into the wilderness. Perhans you think he was one of those dry. lifeless

scientists who care for nothing, know of nothing except

archatepterpa et effipsing variables. The carriers burge of his clubbes, his utraheven face, his absont-minded behavior, might have conformed the blow that he was absorbed in his work that unching ethe entitled for his absorbed his his work that unching ethe entitled for his beautiful to the conformed his his his pool deal of remines left in his make-up. Otherwise, why wild a wintful look come over his face, and why did his steps he wints he present the motion-picture theorem where the property of the steps have been some financial beautiful his conformation that the step of the steps have been some financial beautiful his conformation and the step of the st

why of the street has relied by solved the maximi-pieces when of the street has relied been desired by the street has been desired by the street of the been in duality at the pieces of the been in duality and the street of the been in duality and the street of the str

He roaded here dejected and fired. This heave was a bright respondance of rocurs, in one of which reigned a photoring direct-table. Illis wife expensed, a gleiner triplet which, officied us to look at a comment triplet without the preduce of all the molern arise that make a woman beautiful result of the control of the c

"Guesta will scon be here."



Silver tinkle, indeed, thought Professor Grimm. It was a cold and distant timble, and the tone of it said to him, if the words did not, that he was late again and that his appearance was not presentable for the distin-

guished social esptures that were expected. Thus it was every evening; often the impatience at his tired agreesauce was hardly concealed. Some evenings he would appear among them; at others he would not. It did not seem to matter; he wasn't noticed much, providing he didn't get in the way. The parety always hoted till late; and he would leave the guests and go to bed early, because he had work to do in the morning. His wife would sleep till noon, and he would never see har wrill the next evening dressed for another function. The occasional onoccupied by her intense social architions and a poetline

irrentience at the work which held him and kent her from showing him off to her society audience "I'll come over to the University some day and break up those markines," she complained. "You never want

to go out with me." If he had not been a Professor, accustomed to shaping intangible ideas for practical use, he might have externed that her social nonsense was keeping her away from him; that his work was the thise of real importance. But he

was a man of policy; peace at any price, since war could never hope to gain anything, anyway, "I have a serious problem on," he would explain, "If

it weeks out, it will brine in money." AUTHOR'S FROMWORE: The technical aspects of Professor Grimm's work involve the most difficult and complex conaderations of modern intrastronic obvier. To include them in the text of this story, with which they have nothing

He received his original idea for this work from some of Eddington's writings on the state of matter within a hot other (Store and Access, A. S. Eddington, Yale University Press, 1927). There, matter is very doug and exists only in its samplest forms. There, atoms are not complete for very long at a time, for the vant volumes of short electromarmeric robessess (X-rays) are constantly displacing the electrons in the center orbits (see Boby's policies in the Philoassiste Masurine for July, September, and November, 1913). But these displaced electrons are free only for a short time. ever, they are again quickly displaced by X-rays, and so on.

It occurred to Professor Grines that if Young could be generated in the laboratory in sufficient density, and allowed to evert their effect on matter which was less dense than that in the interior of a star, the free electrons would get far that they would remain free. Then, as successive electrons were displaced from the atom, the character of the atom would thange, and the change would be recominable in the

laboratory by physical and chemical methyla As a matter of fact, this is actually what occurs in a Coolidge tothe (see pure 122, Within the Atass, John Mills, Van Nostrand, 1923), and it tenounts to nothing else than the transmitten of one element into another. The iceritation of matter by X-rays has been descendrated with eraphic vividness by C. T. R. Wilson, who shaws photographs of (see page 102 of Mills' Within the Alana). Professor Green

That made her barrow. Money was needed for beau-Professor Grimm had no wife. That was the way be fult about it. No companion to share his life's uroblens, ambitions, pleasures. He felt rather like an elephant quartered in a butterfly's liouse. That is why movie love or the sight of real lovers made him melan-He thrue to his work with the tenacity of the absent-

tiful clothes and for social climbing

minded professor in stories. His researches in the ioniaction of solid bedies, his concrete realization of perfect gases with high density-these had to be his wife and They took the place of the romance that he missed For, does in his secret heart, concealed under that dry, absent-minded exterior, he was intensely, boyishly re-

mantic. Fairy princesses and adventures in distant lands occupied his import thoughts. Outwardly he consoled himself with work. "People that are too happy," he reflected, "never make such real progress. Happiness has a tendency to remain satisfied where it is. Perhaps that is why I have gotten so much further than many of my colleagues who are older than I. Perhans if I were as barry as Proto-

ner-going away on another trip with his wife; they've away look in his eyes, followed by a shrup of resignation. "If I were like that, I should never have worked out the Integrator." He contented himself with the thought that it is a fine.

was fascinated by the possibility of making definite physical and chemical charges in matter by this method and this was the modest beginning of his accountional achievement. supplied the first actual experimental verification of Bohn's energy is lost by the electrons revolving in the outermost

the benefit of the screenific reader. I append the following orbits and as the orbits decrease in size, the nature of the abstract that I have made from Professor Griggs's notations atom changes, and therefore, the nature of the matter which it compares undergoes chemical transautation Thus, if a carbon storn with twelve revolving electrons loses one quantum of energy (liberated as X-rays and registered and measured with the crystal gratings and X-ray spectra of H. G. I. Moseley and deBroglie) and one of the electrons falls into the nucleus, it contains but eleven envolving electrons, and becomes an atom of boron. process which in Nature requires ages of time; Professor Grines hastened it experimentally. But his prost princersh was its revenal; the addition of a quantum of energy to the

aton, and the addition of a revolving electron. For our reason he had the advantage in this work over any physicist in the world; he had at his disposal practically unfinited power. The hope waterfull was surrounded by University. Liebring and power for the engages utilized but an instructional uncortion of its overry; a million house power was available for experimental work. With this and his three banks of six-foot Coolidge tobes. Professor Grisso was able to generate X-rays which would compare in volume and intensity for experimental work, with the X-rays in hot stars. With a tabe modeler after that which succeeded in abstracting electrons from atoms, and in adding electrons to atoms. The principle is simple: if an atom receives the increment of an electron, it radiates one quanters of energy (X-rays); and vice tyrus, if a quantum of energy is shot into the appeale system, the increase throws off one

electron. For making any element out of any other element, it received merely a standardination of gearfitative technic

### The Invention N the morning he came into the laboratory, divested

scientific work.

himself of the outer world with a sigh at its emptiness, and stood in front of the Integrator, ready to plange into the jey of another day's work.

What was this Integrator, which occupied the Professor's days until he gradged time from it for his classes; which occurred his thoughts at night, his lentures, his private conversation? What was this aston-

ishing thing. before which its own recotor stood in own scarcely able to believe the work of his hands? This morning he was testing it out again. A number of times he had made tests to confirm the accuracy of his

"testern" emptions, but thus for he had always witnessed its agracing performance alone. While the horse generators were starting up and the glowing platinum targets were warming, he say at his desk and worked his slide. rule and lotted down figures. Then, with his eye on a stop-watch that showed fifths of a second, he moved switches and pressed keys. There, in the middle of the room, the air swirled in a spiral and became nebulous.

The cloud condensed, and there lay a sohero-or a brick, or a bar; of gold or clay or inner or of files or letter This marging he was practicing on more complex

things. He speat more time with his peacil and slide-

by substituting different values for the terms of his equation and setting his experimental quantities in accord with the resulting "pentern." A lold effort resulted in a scampering lattle mockey, which darted chatteringly about the lair more, until Professor Grimm shut off the power, whereupon the muskey melted away and disanpeared. He tried another combination, and there appeared a Sittle machine, working bustly away; and when he shat off the power it melted, dimmed, and was rome. with a rush of air out of the windows and an electrification of exercitive in the mon with the dispressed charges.

That sounds like some take of sorvery out of the Middle Ages! Or like the words of some writer who has more inserination then scientific training. Yet it is physics, very accurate, very matter-of-fact, and withal

very dry for the non-scientific reader. For the benefit of the latter, I am making a brief review of the process, which is described technically in in the seneration of large volumes of short-wave X-rays than any man of his time. That was what become of the tremendous power of the huge waterfall, the power that went into his laboratory. Short-wave X-rays, as is well known, distrince elec-

treas from the outer erists of wandering electrons, say of rows, leaving an amonturated atom with an intense avidity to combine.

Arrana's Footworn: That is the fendamental ericolate of the Integrator. But, there is self more to it Possilly the case with which rold or other valuable metals could be thus made would have been the first thing to appeal to the average worker. But Professor Grieses passed that he with hardy a thought, with his eye set on the more theillien-

The idea of a unity of evolutionary procures is syndrolly being built up. The concention seems to be too her for some of our scitmille men, but they will have to grew up to it now. The laborious prescriptions of such men as Horatio. that evolution, instead of being something peculiarly limited to ormatic life, is in reality one configures and identically realignm process from the dissociated item in a hot stay to the gray matter of a college professor-this idea ared no

Grissm started with the bold sdes that life adds puttient corestially different, when it steps rato the prolationary scale; not even qualitatively different. The appearance of life in the evolutionary scale, which matter andersoes, in not an abrupt break, not a radical change, any sapre than the appearance of the earton chain or the carbon ring denotes a radically deferred kind of observery from that of the other elements. Life is but a property of molecules of a certain complexity and certain arrangement; when this complexity and arrangement appears in the crelationary aprics, life is aresent. The old idea that life or its corm must

have come from somewhere belongs in the maseum with phicriston and the indivisible store. So, with his modification of the Million tribe and has cataracts of short-wire electromagnetic witerstons, Grienes took the molecules of enclosed air, added two electrons to the earlies arom to make sitrogen; removed a common electron between two atoms and condensed them to molecules; built up a protein molecule; removed common electrons by the hundred between molecules and built on constituent compounds. The removal of the "common electron" was

molecule of water from two molecules of editel alcohol with By pouring electromagnetic energy into the electronic orlitts, he produced an infinite spectrum up of material evelption. His product was evotoelsons

Nor did he suo there with his stimulation of evolution. By continuing the supply of electrogrammetic energy, he speeded up the evolution of his organic mass-still the same coentially qualitative process which had halft on his inequ

He carried it on up to consilex living belows Possibly the syrighty achievement of this evolus, whose school the coastitueive technic of this process to mathe-He took Planck's simple quantum relationship;

$$u(\lambda) = \frac{8\pi ch}{ch}$$

and built it up as functions of his spark-rap distance and millianzerage, so that he could produce any kind of changes

he desired in the evolution of any kind of syster, backwards He named his equations "electron patterns"; and after they were complete, he devised further experiments to test them. In the course of these experiments to check and

verify the "electron pattern" countions, the Integrator came into being. It was the enveriencetal assurator which worked in the large room as its conferentian-field and which was able to intensify the processes of increasic organic evolution to such a degree that a recie from dissociate elegrons to organic hie could take place in a small reguler of seconds in

large masses of matter.

With his broad streems of short waves, Grimm had a hitherto unparalleled opportunity to observe the behavior of these unsaturated atoms. His wast musbers of ions condensed; his gases were turned into solids of differing composition. He worked with air in his early experiments, and when he got through he had masses of marble; marble ambably, because the marrie cloud con-

sists chiefly of calcum," Thus far the idea is simple enough, though technically difficult. It was the first step to the Integration. His block of marble was shapeless. Could be needstermine

what shape it was to assume? Could be determine on semething other than murble? Could be make a complex

From that to the finished Interrutor is a long story; the relations of the components of a complex body and of the hombardment of free atoms by shurt-wave X-cava: the ability to pick off one electron from a nitrogon atom, or two or three, and of selecting free atoms to attack with the short wares-it is tedous and mathematical staff. Curious indeed were the bodies he built up by incident six with its rection. Simile and water, some tractabring and condensate sons; fantactic blobs of stuff

that twisted and writhed and then chanced on to something else. Is it any wender that the long and shrilling work absorbed him internely? Yet, how could any man endure that nerve-racking concentration unless he had been of despair? However, the achievement was worth it. He gasped when he thought of what that mor of short-

wave tubes could do for him. For now, since he worked out the proton basis and the electron patterns, he had an automatic cantrol of wave-length and radiation density, and was beginning to learn to make what he pleased out of his condensed ions. It was merely a matter of gutting the pattern right to start with. The object would then develop itself. dependence only on a sufficient account of energy. That evening he walked home in a date

even missed the spectacle of here and there a man with a lady interestely beside him. An idea had suddenly struck bim! An idea that stunned him with its force? It was an idea of what the Integrator could do for him, and was even greater than the idea of the Interestor itself. He looked out on the may world that had so disappointed him, and his hunt leaped wildly with anticipation. Now he would have happiness. A keen brain

His wife was all rendy to start to a theater-party. her beautiful rown and sweet wrice making her seem distant like a lasty in a story. No, he did not want to go along. He never did want to go along and he displayed, bert bouisht he wasn't even in the same world. His wife went on to the theater-party, and he, with brad throbbing and heart racing with excitement, went buck to

He had elected the vast, auditorism-like room; and the Integrator stood assembled at one end of it. All else was yest areas of here foor, well, and ceiling opened all the windows wide; he would need to draw on the atmosphere for large quantities of matter. And he sat down at the nattern-board of the machine

the laboratory.

First, swirling nebulae. The vague shapes took form in the depths of the tog. They rolled like clouds of smake and changed. Soon he could see trees. Soft, rich, green grass in their shade; flowers and birds in their imment depths. A sheltered dell, a nicturescue cottage, and through its windows, plientees of a bril-Bant, lexurious room, with draperies, lamps, and a And last, and prostest of all, a beautiful women!

About an hour of exiculation was necessary; nead-

stide-rule, and book of integrals were kept busy. His persits come out as milliomperes and spark-our lengths

and he manipulated the switches and rhecotate. There

to front of him grew his droom.

She materialized in the doorway, with a melting smile and a simple man of soft silk; the waited for him as he set the machinery to continue running, and wallerd into the picture.

"Are you real?" It sounded faolish, but he couldn't helt miester it. "Real, and mailing for you," She held out both hands

They sat toreiber on a divan. She was real. Her bands were soft, but there was a firmness in her handshale that he filed. He touched her shoulder and her head. They were real. She smaled at it.

"Do you believe I'm here now?" she asked "What is your name?" was his breathless reply. "It's good. Sounds just like I feel."

She brought him lemonade. He wished he were more carefully dressed for she around interested in him: her eves were always on him. She was intelligent and talked well. They talked a good deal in the preliminary peocess of getting acquainted. She was cheerful, and had a good sense of braner, and made him feel rested. The evening passed, and he forgot; forgot problems and troubles, and the gray world. When a man can

fernet, he is broom. Professor Grimm had rarely been "I shall see you again," they both said when he took Before shruting off the power, he checked his patterns most carefully. He was satisfied with her and with

enveything in the nicture just as it was. Beforehand he had not been sure just how it world come out. Now be was arrises that a repetition should be accurate Then be shut off the generators gradually, one after another. There was a dissmine and a thinning of the and hard work can prind happiness even out of this bleak scene of paradise before him. (He had a vague, fleeting feeling, that was gone in a moment, that he was killing, annihilating somebody. But he reassured himself that he could reproduce it all tomorrow.) It faded and was once. Only the hore room was left. was a more entry sense of pressure in the room as the disinterrating molecules expanded, and before the windows released the excess of atmospheric density.

more was here, just blue the world. He went home through the late night, his nerves in a date of fatigue from his unusual experience; but it was a welcome The next day seemed endless to the Professor, A

blaze of bronze hair and the softest of round arms world not go out of his mind. Even when he was busines, he could bear in the background the low,

"I shall see you again?"

That evening he dressed encefully and came out as survice as one of his students. Back in the laboratory he sat by his patterns and switches. The scene before him rose again, the idyllic forest cettage, the lovely Amaranth at the door. Everything was countly the

stree. The netterns were accorate This time the carer pressure of her hand made his heart lean. Her eyes rested admiringly on his natte figure. Dry, scientific man, ch? If so, why should the fimid hand resting on his sleeve thrill him so intensely?

She brought him a grape drink this time, and cookies. and a custion on the divan. She song a filting song at the pione. Professor Grimm was happy and the world was no longer error."

The Adventure And so, the "electron-patterns" were set many times, and much power was used from the waterfall. The Professor, after a hard day's work would take a perfunctory turn at home, and then burry to the paradise waiting for him. There were long hours of sweet companionship, wonderful communions of perfect understandings in all fields of thought, lovely arms about his

neck, and a some in his heart like the remie of the selecres. He was a changed man. His friends noted it. Even his wife noted it. "Is the work coing well?" she asked, "You look

jeitler than you used to." "Another invention," he evaded, "If I can sell it to some corporation like the Assalgamated Amusements, there ought to be a million dollars in it for so. Come

and see it." A million dollars sounded good and she came. He made flowers, deesses, automobiles surine out of noth-

inrness before her eyes. But the wander of it was not as creat as the million dollars. His students talked him over between ciraretten "Grimm's getting cheerful. Remember how he used

to en around with a load of closm? Loads like a "They are he used to have trouble with his wife, Maybe they've fixed it un."

"Well, he's sure been easier with the red link lately, His course used to be the only one that more me new year's He grew popular with the students. He was excellent company in faculty gatherings. His friends were grati-

fied and delighted at the transformation. Some of them had felt sorry for him, in view of the pace his wife led bim and of his intense concentration on his work. Now

search.

It proceedings the proceeding of Against's has eathing to do with the stand of the stary of Foderman Green's exacts for hope of the proceedings of the principality is not expended in a realizable of the principality is not expended in a realizable of what constrainty polaries of Foderman Colleges and the lappropriate. For the foderman for the lappropriate of the foderman for the foderman and the lappropriate of the foderman and the lappropriate.

he sought company, and was a hail fellow well met. instead of a rheet at the feast. Weeks lengtheoed into months, and the Professor was sell happy. "Have you sold your invention to the Amalgamated

"No. I'm still working on it. I'm not satisfied to let it on an it us." "You're too particular. It is taking more of your time than ever. You don't even come home now. I'll

come over some day and take you away from it. I'm getting leafous of your old machine." He felt guilty. People thought he was working terribly hard. He'd had some work in mind on solar

power, and it was pertise time to be at it. But he couldn't seem to compel himself so get to work. He was barry and ratisfied. He didn't were to week Some of his faculty friends also talked him over

"Grimm is lessing his grip. His classes are entertaining and interesting, but they are not clear and forceful as they used to be." "He's been talking of solar power, and I've looked

for something good. But he doesn't seem to be working. The apparatus in his laboratory basn't changed for Professor Grissen could not belp eventually hearing

these things by roundshout paths. He sighed. For a moment the world all seemed gray arrive "It must be that progress and content do not go to rether," he mused. "Harry men never do ble stuff." He brooded and remained state in melancholy for several days during which be never touched his

The Decision

"patterns."

MNALLY, one evening he came into his laboratory and started the generators. Things were all wrone.

He was morose and enabled. He couldn't stoud it he had to see her again. In her arms, there in the depths of the forest, his soul became quiet again. Again he forgot all but her-

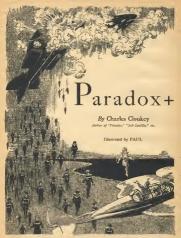
her bronze bair, her melting smile, her devotion to him. Or rather, he almost forgot, for there in the barleground there was some sort of throbbing, pounding, The pecualing kept up. It seemed to come from another world

Someone was at his laboratory door, and was shaking it. Was it locked or not? A fash of fear shot through bin. He did not want to be caught thus. (Continued on poor 323)

She must have been passessed of a regular and symmetrical of facilities and a make passent vector. See must be a superior of the second of the second vector of the contribution of the second of the second of the large of the second of the second of the second of the large of the second of the second of the second of the second of the world noted these poles who is needed to see the large of the second of

would never this pile some research to the very interestly high continue of the reverse. Me had credited in all the hard are researched by it as per paid at the last are researched by its appearance of the research to the continue of the research to the partial of the properties of the research to the partial of the partial of the presearch of

or development from the annual new. It has not to be a figuration of the control of the state of the control of



By the most during manipulation I have ever seen, our pilot put us below
and slightly to the side of the one who fell, locked his helicopter control . . .
opened the door, and reached out to saire the girl.

"BARADON" one generally actioned "one of the circuit fourth-dimensional and inne tracelling stories" and request come in few a result. "Baradon th" it seems to us, it were better than the first. dillowagh our here reterned to his vost time, intact, it was not quite clear what happened later in that faure time. How did the battle end! In this eleverly written and exceedingly shalled resurd. Mr. Coulex tells more about it.

The STATE Is the requestor I result of a second for the second for the second form of the State day unjul, Contain the seventh, 1928, is a group of assugation as at a certain Publication and the second form of the second f

Then Regional Courses told that story which I have tentid in print and acid "Persidene," I is said to the its was treat, but he did not ask us to believe it, as he could not be a superior of the story of the story of the winter, had found in his multipost a mysterious methoular and the story of the actionses of the "Fourth discussion," and described it as time. Cannot tend how Hawkingson constructed as the story of the shortly after he had seen Cannot one through and to your time for fairney to the year 2000.

invititization at the circumstances surrounding the origin of that unarescript, which was used before it was made and could not have been made if it hadn't been previously of the time when he was actually and physically in two different places to one and the same time. He sold us not only of those, but of other seeming paradoxes and absurdities he bad encountered. He told me that he could not believe the things he are borren, for his twentieth century mind was incapable of comprehendwhich recorded the fourth dimension as counts and slaregretery, and which dealy with prevaling through time as an accomplished and commontolice fact. He told us of Dwar Born, the errat thirtisth century scientist who as all time-traveling previous to 2930 had been into the future only. He told us of his love for a tall, slender girl of the future, the daughter of the scientist. He told us of the incredible adventure that took above on the requester ninety thorough ton air-liner Potrician on route from Australia to New York. Pleeing from a discussion incomprehensible to him of the mysteries of electrons. teroulsizely kissed her. She resented it and struck at him. accidentally striking and breaking one of the delicate life-disks attached to his shoulders. Everyone on the experience attribute vector those disks. In case of an acthe secole that was above being boundonst and using that nower to beeak the fall. Carnes then told us how he had gone in search of her father, the scientist, had found him dead, had captured his murderer in soite of the fact that the murderer was pring a stoken device to repler himself totally invisible, and how he (Cannea) had discovered that the murderer was a suy from the planet Mars, who later disclosed, unwillingly, that the earth was in great peril, as Marton spies had distributed all over the corth, in his most densely necessary necessary enormous quantities of the terrible Martins explosive brarrow, which unassisted the power of being deterated by certain etheric waves. One large quantity of this embries was in the carron-rooms of the great place Patrician, and the radio wave, that was to detorate the fifteen minutes, from the great station established by the present of Mars at the Kurth's South Pole. All this information was obtained from the Martian ere by ortificial hypnotises. The spy concluded by stating that not one terrestrial being would be alive after three days had

If you have read my account you will remember hour Cannot told us that the encerous plane, death-lader with Martina brarron, was abandoned in mid-air, all of the consequent and even descending to earth by union them life-dukes. But Cannes' disks had been destroyed. He had exceed by using the time-mething just inverted by Dwar Been, which had returned him to the year 1928, You will recomber that Carner' last plumpse of the girl be loved had shown her follow away from the plane, which was loaded with explosive, a very few minutes before the explosion was to take place. But, because of his own entered thereach that forestly disserving he had maken known whether or not the explosion had gave talon place. never lowers whether or not the housen exce was annibilated in those three days in September 2930, as the Martine spy had threatened,

had you will remember how Causes had found me from self records that it does his deser recorded on the record of the record of the record of the foundation of the record of the record of the foundation to Indiana Centers the eights, and had because to us that he had devered fast. But size had cheated then, for without his knowing in the machine of the record of the record of the record of the second of the record of the record of the record was dear, can also the choice which he death had death was dear, can also the choice which he death and was dear, can also the choice which he death had death was dear the record of the record as the winners before satisfage. that even if you have not rend it you will be able to an action would have approach unsversity in the club. At understand the story that follows. If there are points least I had confirmation of a sort. that are not clear to you, a reference to my previous Crandell Sherman and the others came in from the next room. After various greetings and introductions, article will doubtlessly make them plain. Sherman was much to start his talk. I noticed that everyone who had been present at Carnes' trilling of

M ONTHS later my friend William Simons pend the story. He laid aside the magazine and remarked his story was present now, with the noticeable excenwhimsleally, "You've a peculiar imagination, Cloudery. tion of Gene Preston, who had violently disagreed with Just what good it is, I don't know, but it's peruling. But Shreman and who mointained that Connes' surv was why did you kill off Cames at the end? Isn't there nothing but fiction, and that traveling through time was enough tragedy in real life without you storythe most abound of all scientific abourdities. I ventured writers? . . .

I interrupted bim annoyedly. I had no just reason to be arrowed, but I was, I picked up my seran-book and showed him two slightly vellowed diopings from the Philadelphia Evening Sufferia. One told of the fire in the laboratory of Endloots Hawkinson, rich experimercer; and the other, dated a few months later. (October 8, 1928), told of the killing of Raymond Cannes. on a street sear City Hall, a few misutes before the stroicus midnicht, blaming the hit-and-nun driver of a

speeding truck. Bill Simons read the climines and turned to me inquiringly.

"You used the names of real people?" "And I told a true story. That is, while I don't know whether or not Cannes' story was true, it is true that be told that story to the group at a downtown clob, and it is true that he was killed later in precisely the manner stated by the crumbling records he had been informed of, on the day stated, although he thought he had 'gypped the grim reaper' through the fourth dimension,"

"I do, although I occasionally have some dealers. Ret if that story was a lie, it is the most amazine and unbelievable coincidence in the world that he should die in

such a morner at such a time." "Then why did you publish it as fiction? There were, according to your own statement, a group of disinterceted and reliable witnesses who could wouch for the fact that Cannes told the story, and who also, you said, witnessed the 'coincidence'." Just then my phone rang. To my astonishment, Cran-

dell Sherman, the men who had started the argument with Preston in the first place, was at the other end of the wire. He was evidently nessed for time, but he invited me pleasoutly to meet him at the club that evening. He stated that he wanted to gather together again all light to throw upon it. I went that evening for the sound time to that club, and I took Bill Simons with me. We were the first to arrive Shorely afterward cause

Ralph White and John Stevenson, as solema and intelbetter! a pair of young men as I ever hope to see. I asked White to confirm my statement to Simons that my story had been correct, exset, and true. White did, with

"The story was correct, in the main," he said pelsatically, "although Mr. Cloukey did embellish it a little; not unitally, however. But he used a buffy mixed meta-

ther which really earned be blamed on Cannes, because Campes didn't try to use any figurative language, in spite of what the written version is. On the whole, however, it followed Carnes' nerrative rather closely."

I'd hove liked to have thrown a dictionary at White by the time he fittished his relitely impolite terrorousce-"Preston arrived and was astounded and then conment, but I had no dictionary anywhere near, and such viscoil. He became exceedingly excited, and his enthusi-

"He will not be here," said Sherman, and started at once on the story which is the secuel to "Paredox."

## Crandell Sherman's Story

HAVE always believed," he said, "that Cames was telling the exact truth to us that right. I think we all were ready to believe it after that accident, even Preston, although he would never have ad-

"I was particularly impressed by what Cames told us about Endicott Hawkinson, for although Cannes was obviously ignorast of the fact. Hawkinson was also a dose acquaintance of mine. In fact, he married my women'r sister. A day or so before we heard Cannel story I had been talking with her. She told me that she had not disturbed anything in her heshand's laborators since the fatal fire, as she thought that many of his scientific devices had not been seriously injured and duintended to have them approximed. She had been out of

town when the fire occurred "The day after Cannes' death I went over to Hawkinson't lab. His widow, my sister, let me in. On the bernt remains of a heavy table were the charged remains of the tale blue manuscript, that eroduct of a far-distant contury. I identified it beyond the shadow of a doubt, though it was only a been of home easer. Some little sinces

hadn't considerly lerret. They were a sole blue. Two of them had fractionts of mathematical econtions on them "Remembering how I had been ridiculed the day before by Preston, I should for him to lob me. He did although he thought I was joking. That is, he would have thought I was loking if he himself hadn't seen what becomed to Cames. By the time he arrived I had time machine bodo't been seriously or nermanently injured. The heavy hollow metallic cube, supported a feet off the floor by four large vitreous invulsions, precisely as it was described to us by Caupes, had not been materially affected by the firmes. The early heavy cables leading to its eight corners were still intact. The cube

and for feet three on each edge of the interior. There was a close fitting true-door in the top of it, and the remains of a wooden step-ladder were nearby. The heavy cabinet with the bekellte panel, from which emerged the eight cables leading to the cube, was intact and hardly discolored by the flower "The fire in the laboratory had been not at all severe

in the place where the time-machine stood, though the damper to other parts of the building had been were great. This was an enormous piece of good luck.

aver was contagious. To be brief, we spent several got them to reconnect Hawkinson's private power line. first sending electricians out to the lab to repair the faulty insulation that had coused the fire. After all recombing against a resetition of the short-circuit with the regular house-lighting circuit had been taken, that machine of Hawkinson's for producing and employing the NN-4 wave, the fourth-dimensional or time-wave that we learned about from Chemes, was arain reads

for use. "We set the latitude and longitude dials to indicate the location of Sydney, Australia; and after much discussion and arrespontation we set the time dish to indicate September 28, 2930. This was the day upon which for New York on the gignatic liner of the sir, Patrician. "I don't know exactly why we chose that particular

date, but our reasons seemed very logical to us at the time we did the choosing. We were both a little crazy with the excitement of what we had discovered. "We took a certain friend of mine who could be trusted to keep our secret into our confidence, and showed

him what we proposed. He served to help us and to keep his knowledge of our disappearance to himself, although he was debious about the possibility of our intention and about the advisability of helping us. We gave him a signed statement absolutely absolving him from any responsibility in case our disapproximate should be traced to him. When he had thus been protected, he sided us by throwing certain switches on the pand of the cubinet, after Preston and I had climbed inside the hollow metal cube. And so, although we were impount of the principles and the construction of the machine, we were taken out of the world in 1928 and put back in in 2930.

tion through perfectly black space. There was extreme cold, and, I think, a complete lack of atmosphere. We exceed for breath and would have been sufficiented if the journey had lasted a few seconds longer. In the three-Omensional world it would have taken us more than a fourth dimension it took us seconds, not containes. Time is relative, you know.

But it sermed like ten seconds to us.

"When I was almost uncouscious from cold and lark of air. I heard distinctly three clicks. The motion stoomed with a lerk that burt, and light dassied my eyes. It was I was standier in a deserted street between two besidings whose sheer beight startled and impressed use. Official I estimated that they were at least five times the beishing of the Washworth Tower

"Someone startled one by trucking me on the shoulder I wheeled and saw Preston, whom I had entirely forgotten for a moment. He smiled at me doubthully. "'Carnes' story was truth," he said solemnly. 'Bet, Sherman, it has uset occurred to me that you and I see the biggest pair of aminturely dammed fools that ever

"And we plunged forward into strange adventure.

"WHEN we had proceeded shout a quarter of a mile, we came to an intersection and noticed that for some reason the narticular section of the server we

was thick on the other three arms of the intersection. There was no noise, no confusion, no diet and smoke, The vehicles, of all sizes and shopes, moved morelly, silently and emoctaly. There was no one near us on the extremely narrow sidewalk. We watched the traffic, intermedable, for ten or fifteen minutes, then witnessed an accident that turned out to be very fortunate for us. "Due to some fault in material or workmanship, a

The driver, with necessor of mind, swerved his murbine out of the rapid line of traffic, and the heavy enclosed car leeched to a stop a little way up the street that had hern blacked off. Preston and I recrused the wheel and caught it. It was fitted with a brave cocumutic tire. made, I learned later, from chose synthetic rubber. We rolled the wheel back to its owner, who had already sacked up with a little compressed air desire his abitter. ing, peculiarly shaped which. He put the wheel on with the aid of a kit of little tools, some of which were also occuped by compressed sir. Then, hospitally, he said that he noticed we were strangers, and offered to take us

wherever we wanted to so. He smiled when we mentioned Dwar Bonn's laboratories. " I work there," he said.

"As Cames had been, I was arrased at the comsensively small chennes that had taken place in the English language in such a long period of years. You remember how Cames explained that circumstance, so I won't so into that. Our friend introduced binned as Jac Vance, an assistant chemist in Bone's great establinkment, but told us that 'this was his night off,' but that he would be glad to toke us there. For the first time I realized that it was late in the day. I remembered notice ing the artificial light. Then I saw that it was really late in the evenirus, though the great globes, suspended above the streets on slender cables, gave a natural, pleasant "The sensation was one of rising with terrific accelera-

"A few minutes later, with Preston and Isc Vanon at my side, I was standing in the presence of Dwar Bonn's confidential secretary. I asked to be permitted to see him, as I had important news for him. (And I had such news, for, if I could have seen him then, I could have told him in advance about the Marrian plans, as I learned then from Cannes after he had returned to 1928 through the fourth dimension.) I was half expecting the answer I gut, for I was just then realizing that we had picked a rather poor moreout to appear in the thirtieth DOM/SETY:

"'Dwar Boun,' said the secretary coldly, has recently left for New York on the air liner Patrician, taking with him his daughter and Ray Cames, a guest, but leaving specific instructions that he was not to be bothered by now measures or communications. Members of his staff will affend to your "important nows." You will please dictate it to the dictophonogrister in the next room, and it will be attended to in due time, replatly in about

three weeks, as there are many things that precede it. Good evening. "Before I could say a word the high-hat secretary had disappeared through a door.

"Juc was angry. 'Listen, fellows,' he said, 'you'll never get any action that way. That secretary is a conceited unleade, who worldn't lift a hand to belo proved. I've got nothing to do toright, so if you want me to, I'll get my plane and we'll fly out to catch the Patrician. She left the Swhiey termines only an hour ago. I can catch her in another hour. We'll land on too, minz sectionpad landing gear, because the captain of a big monotriplane like the Patricks wouldn't stop for any reason to let anyone on. But we can stick to him by soction, and talk through the walls with a dick and a mike." You tellows say you have an important mesongs, and if for no other reason. Ten going to show that \_\_\_\_\_ secretary that he can't sidetrack fac Vanon.

"He was full of enthususm for his idea. I pressed, correctly too I found out, that there was an old grudge between Vanor and this particular secretory. He instied us back into his car, took us to a signeraner gurage where he parked the big electric readster and ascended with us to the roof in one of those amening clevaturn, whose occurrants feel perfect the autrony ascent not the equally rapid descent. He get out his plane from the hangar on the mod, and we took off after he had fitted us out with two extra pairs of life-disks and had dormed his own. Their use is required by law. Little metal rods support the disks an inch above the shoulders.

I could hardly believe that in case of accident they would "As we took off from the mod-drome I became oware of a thrill of liking for the impulsive Inc Vanon, and I think Preston did too. In a minute we were away from the lithes of Sydney, abooting along in the smooth silent plane at a speed of almost 2500 kilometers an hour, more than twenty miles a minute. The marvelous science of then far advanced ago made such speeds possible without the slightest discemfort. Inside the plane we felt no vibration and were not affected in the slightest degree by the acceleration and deceleration of the skyboat. When we made turns centrifugal force was not even noticeable.

As Cannes has observed, only by the eyes can one sell "Inc Vasion told us that he would hardly be shie to fulfill his promise of catching the Patricies in another hour, as he had figured out that more time would be necessary. Then he asked if we could relieve his curiosity and sell him why it was so imperative that we reach Dwar Bonn. So we told him the whole story. He was tremendously impressed. His mood changed to seriousness. He was a man of the thirtieth century and he understood very well how, by traveling through the timedimension, it was possible to know future events before

Marting bearens. And the whole world-but you say they will be warned by radio from the Patrician fifteen minutes in advance of the explosion. That is fortunate for many will be able to escape from the crowded centers of population, where the explosive is likely to be stored. If this plane had a radio I would warn the world aren earlier. But we have none. We'll try to accessely as near as in case to the Patrician before the explosion taken place. Maybe we can save some of the unfortunate ones who would be hit by iragments of the wreckage while they are falling with their disks and trying to escare. Frayments of the wreckers will get a lot of them. "Perhaps even now that havisible Martian is killing

" 'So the Patrician is doomed,' he mused. 'Doomed by

Dwar Born, said our companion hitterly, and then was "That started me thinking. Perhaps even now as we turned it, the men on the Patrician were learning from the captured Marciso's unwilling lips about their danger

\* Denter and microhere

ing that one kits she had so hated him for. Prehana-I looked out through the side window of Jac Vanon's fast plane. The full moon was avoid or one "Jac Vanon swore under his breath, "'Greta Bonn is on that plane,' he said. 'I hope the survives, or life will be empty for me. Sherman, I admire your friend Carnes and I'm sorry for him, but "I said nothing. Gene Preston whistled

"Far ahead of us we could detect the gleam of lights. In a very few seconds we came near the Patrician, ninety-

and the danger of the world. Perhaps-perhaps be

hadn't yet been contured by Cannes Perhans Carnes

was on the unper deck under the transparent roof near

the erest ventileace with Gerta Boon in his arms steal,

thousand ton liner of the monotriplene type, three great wines, one behind prother, and the third behind and slightly lower than the second, supportion the great lighted fractage. It was a city in the air and it was being descried. Thousands of people were jumping off and falling with their life-disks. The prest obese was motionless, supported by ten helicopter propellers of colorsal proportions

"We know from Cannes' story that the explosion would take place in a very few mirrotes. I experienced a thrill of wonder as I realized that Cannes was on that tikine. Yet I had seen him killed by a truck a thorough years neeviously. The narradox set my head whirtless. "The last great wave of people was descending from the motionless pinne, when Jac's flashed by rather close to one side. When we were a safe distance away Jac slowed and stonged, turning his little sirear around so we could watch. I could see the muscles tant in the throat of our friend of the future. Preston whistled

"We saw one lone favore fall away from the Patricion after all the rest. I thought that it could only be Greta Bons. Causes had refused her offer to give him her life disks in place of his, that she had destroyed. Comes was now alone on that great litter and he had no disks

with which to save himself "At the Martiso station at the South Pole, presumtions were being made to broadcast over the entire model the radio wave that would detonate the bearron in the cargo-rooms of the Pairicles and elsewhere all over the earth wherever the spies of Mars had placed it. In shins and airplanes, in factories and erest office brildings, in cities and in great sericultural regions, the mysterious hearron, the extraordinary Martins ex-

"But the radio staff of the Patrician had warned the world in advance. All great cities were being deserted silently. Most of the other great plants were being abandored. Fortunately, no Marting say was able to get word to the communiters at the South Pole about the disclosure of their plans for surprise, and the detonation did not take place until the scheduled mament. If it had been exploded five minutes earlier, the bracero world have done twice as much damage as it did.

"Counce has told you how he escaped through the fourth dimension, returning to 1928 to be hit by a truck. Irony? Destiny? I don't know. "A tremendous yellow flash blinded us. Seven seconds

later the sound and the concussion reached us. As the wrecked remains of the skyliner fell. Jac's little plane hurtled toward it.

"It was only the from and of the plane that had been destroyed. The rear half fell toward the ground in one corce. As it fell I saw Vanon staring at it with puzzled and expectant eyes. Nothing hopocaed. Our plane slapped to the left, avoiding the great mass that was falling intect

lac out our corner into a steen dire and soon givend past a slender fature, failing slowly. By the most during manipulation I have ever seen, our pilet put us below and year slightly to the side of the one who fell looked his belicopter control to keep the plane motiouless, opened the door, reached out to seize the girl as the disks let her down. I had a hund; that she was none other than Greta Bonn, and exclamations from Jac soon confirmed the fact. I remembered from Cannos' story, that she had been the last to leave, and she had been the first

we had seen on our downward dive. So Greta Born was "Some niece of the wreckure had hit her. She was unconscious and bigeding from a thin, clean, six-inch cut in her forehoad. Oblivious of Preston and me, Jac. tried to kiss her back to consciousness. This necessive

section of procedure rost with remarkable success. She "'Raymond,' she whispered. 'I'm sorry, Ray Cannes

"Joe winced and turned away his head.

"He took off his outer blue-gray cost, revealing a garment like a shirt without any neckbond or cellar. It was white, made of fine material. He tore it into string

and bandeged the cut in her forehead, purting on again the outer cost. "Treston," he said, 'do you think you could run this

boat? "Twe been watching you," was the reply. 'I could make a stab at it, at least

"'I can direct him,' said Gretz weskly, learning back mearly against one of the beary artificial leather

"Fine. Preston will take you back to Sydney, If there is anything of Sydney left. Er-follow her directions, Prescon, Thanks,"

"Ize booked his arm in mine and jumned out the door of the motionless plane, dragging me with him For a second cold fear held my heart, but the disks let us down slowly and I soon rained confidence. Inc was

with me. Far below were many twinkling lights. Varion spoke. "In your time there would have been nothing below

us but the Pacific Occan, but in the last centuries much artificial land has been created. Below us is a sreat wheat region. I doubt if there are any men except those who jumped from the plane within a hundred miles or

more. Men are no longer necessary for the cultivation of wheat. Robots do that." "'Why did you leave the girl?' I could not help but ask, as his conduct seemed certainly uninverlike,

"I'm taking a chance,' be replied. Twe got a suspicion that may possibly turn out very well for us in our war with Mars. Considering that, I left Greta there. Your friend has mechanical ability-the fact is self-evident. The control system of that plane is very simple, so I do not expect any difficulty or trouble. She's lost a lot of blood, so it's important that she be attended to soon by a competent physicism. A little modern healing, and there won't be a near left."

"Investigate. There were two cargo rooms on the Patrician, one in each end of the fuselage. The posscience quarters were between. It seems removal that all of the brarron should happen to have been in the smaller of the two eargo-rooms. I don't think the Martions meant it that way. I think they would have planted some of it in each eargo-room, for it would have been much more effective. If they did, perhans there is some unexploded brarron in the rear cargo-room. If we could carriere some of it, we could soon find that closive wave that deterrates it. We could ambrae it and rescoduce it. When we find the wave you can understand that all the brarron now in the Martians' possession becomes not only dangerous to us, but to them!

"'What do you plan to do now?"

"But if there is some unexploded brarron there, toky wasn't it exploded when the note was sounded?' I objocacal. Why was it not sensitive to the broadcasted

"'I don't know," said Jac. 'There probably isn't any bearron there. I am just taking a long shot in the dark But it just doesn't seem altogether right that it should be so illustrative distributed. It did its week however." "The disks had by this time let us down almost to the ground. Close by was the great hulk of the once ploriers

Patricien, plantly revealed by the orange moon. Many men were rathering about it. A large number of them had electric lights, operated either by harteries or by the power that was always being broadcast. So far, no been ron had seriously affected the radio-power plants. They were important units in the world's organization, but they had been so well guarded that the Martine spice. working under cover, bad been able to locate no brarron near enough to them to do any damage, with the exomittee of two substations in New York, as we learned

beter " Crandell Sherasan interrupted his narrative at this point to answer a telephone call. When he returned, he took in the story and sold us of Tar's search through the week for the employee, which was found in large quantities, due to his playing the bunch he had, when he saw the airship full. Sherman told us how he had used the radio one of the survivors possessed and had radioed to some of the staff of Dwar Bonn in Sydney. Most of the scientists at Bonn's laboratories had escaped

in the rick of time the explosion that wrecked the great huildings, as bearron had been cleverly concealed in the foundations of the buildings by some of the Marting stries, who were all over the world, disguised, for thes were Martian besins that had been transplanted into the bodies of autfortunate humans who had falled into Martian hands. The Martians used human bodies, as was explorted more fully in Cornes' story, because the fragile Martian bodies could not exist long on earth because of the superior eravity. The Martians had

learned this in the two previous Martio-Tellurian wars which had taken place in the centuries previous. As Sherman has given me express permission to after his story in any way I desire, I am going to omit large occupies of his parrative, telling at this point of facts that Sherman did not disclose at the club until the end of his story, facts that Sherman himself did not know at the time when he and los Vanon found the bearon in

the rear earm-room. As I understand the situation, the door from which

the two emerged to descend with the disks was almost

directly below the wing of Jac Vanon's monostane. As they make out of sight in semidarimess, a slight former who had been lying flat on the wing, swung down by a handhold and entered through the door, a tiny odd-

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looking pistol in one hand pointing at the astounded Gene Preston, who was just unlocking the controls, under the direction of Greta Boon The girl turned toward the intruder who struck her heavily with his left hand, which was encased in a

metallic flexible playe. She sank back unconscious against the leather cushions. Preston made a motion toward her, but was checked by a threatening move of the weapon in the intruder's other mailed hand. Prestun

looked at the face of his captor. The eyes were a deep red-flecked purple, with no

When the Martisus transplanted Martian brains into human bodies, it was found necessary to transplant Martian eyes also, as the eyes were the only organs of the body that did not function equally as well for the Marting brain. The eyes were the one give-away to the Martian spice, who had managed remarkably well to been their conceased with colored phases, and had probably been able to kill all human beings who had dis-

covered their secret. How the Martian happened to be on too of the winer I do not know. Sherman was not a witness of the situation, and his account at the club was nebulous, for his own knowledge is not very clear on this point. The Marting could not have been on the wing on the trip out from Sydney, for the speed, accoleration, centrifugal force, etc., at twenty miles and more a minute would have killed anyons, and the air-occasive, susual by the terrific speed would have blown him off the wing. He must have been on the Patricion, escaping the explosion even laser than Greta Born, landing on top of the wing with his act of disks after Inc had rearned her by his daredevil manipulation of the little plane. Perhans he was the same spy whom Carmes had captured aboard the Patrician. Carnes never knew what fimily happened to that Martian. Perhaps the spy had been able to escape from the officers in whose custody he had been

placed. Perhaps he overpowered one of them and took his set of disks. We do not know, but we can consecture. At any rate he led overheard enough to inform him that the girl was Greta Boso, daughter of the great earth-scientist. Due to Jac's fortunate abruptness, he had not overheard the reason why Jac and Sherman had issued off. The Martian, thinking that the eld probsecrets, that would be murful to those at the South Pole. forced Preston to head the plane south at its maximum speed. Inside the plane, as has been stated, such speeds

could be enforced. The plane could be electrically heated, and it rapidly senetrated the Antarctic regions, speeding at an incredible rate toward the hendenarters of the Martiana on earth. And birth in the slee above the South Dole was a light that ever came nearer. Gradually a low man made itself andible and run on the ends until it recent has

youd ambility as an encapitation acrosch. With terrible momentum the second Martina space fiver plunged into the soft snow. It was not from its passage through the atmosphere, and the snow was vaporized at once, The first fiver had brought only axies to by the

in advance by the message from the Patricias, but returned to the one building that had exceed any serious darrage. Receiving Jac Varion's message that he had obtained some unexploded brarron, they had sent a plane out after it, which had come back with it and lac and Sherman. Immediately the areat stuff started the task of analysis. It was morning when Jac came out of the chemistry room and told Sherman that they had been specessful. I now resume direct quotation from Crandell

foundation for the war, which now was to begin in real

earnest. "In three days," the spy had told Ray Cames,

the outer office of one of Bonn's laboratories at Sydney.

the only one that still existed. It was the chemistry and

physics lab. The destruction and death in Sydney had

been terrible, but the scientists who had escaped, warned

But Sherman lonew nothing of this as he waited in

Sherman. Crandell Sherman Continues His Story AC seemed areath; excited as he told me that the

armiesis had been successful. " 'What,' I asked, 'is the stuff?" "It is a compound similar to nitroglycerine, but it

now. Imstead of nitroglycerine, which is glyceryl nitrate, it is obviered recrute, or necessorivering. "'Neonze? A compound of meon? I thought peon was on inert elegant." "'It was, until a couple of conturies ago. Chemistry

has advanced a lot since your time. While nitroplycering has the formela C.H., (NO.), brorron is C.H. (NcOa), When it is determined by that wave it is scenitive to, it decomposes instantly into guardus prodnets. You notice is contains more oxygen than nitroplycerine. It can also be set off by beat or by a violent shoeld, but it is not as sensitive to these as an ordinary nitro compound. Its exclusive property is its sensitiveness to that wave, which he the way, we have not yet found. The men in the obvoice lab, have a cubic millimeter of the stuff and they haven't excluded it yet," Jac

concluded mournfully. "I was astociahed by this information. I had thought that peop was absolutely inect, that it entered into pochemical combination, had no valence. But these chemists of the Originth contary did not seem at all amazed because this rare may was in chamical combination in houses the embries of More. Since I have returned to the present time. I have under with one of Philadelphis's best chemists. He informed me that noon was a rare gas occurring in the atmosphere, that it power formerly been meless, though recently it has been emplayed to great advantage in television transmitters, neon advertising signs, and so forth. When I suggested that slosives, sensitive to certain waves, the chemist laughed

" 'Now that you have the formula.' I asked Inc. 'what are you going to do with it? Manufacture the stuff?" "We could, but I don't know whether or not we will We reald easily make all the near we would want by transmutation, which would save the trouble of extracting it from the air.' (This was another astounding piece of information.) That, the continued, the frustion of root, that it, the presents by which we came it to actually consider with other channels to form the sense and, which would be noncamery in the manufactures of noncongregation, in an extremely althoris operation, re-defined to the contract of the manufactures of noncongregation, and a great amount of tachestal still and shiftsy. Terrestrial chemistry is still behind the Muttan Issued. They appearedly one do it easily, and in quantity. On the curti, since other saids as much chapper and some

practical for every purpose, very title acoust and or other nean compounds are in existence, although there are some supplies, principally in the laboratories of a certain liggiption scientist.

"By any chance the one who has perfected a process for causing total invisibility?" I asked, having in mind

Regroad Canner' story.

"Yes,' he side parenthetically. 'But the important thing to us now is not the formation of hearrow, but the myderical of the property of the physics lid. are trying all wevelengths and constitutions of wevelengths, but the dope is constantly unresponsive. By the way, we think we've found the reasons why it

By the vary, we think overtee found the reason why in dist" exploit on the plane a few hours ago. You probably dist" sould be the plane as the hours ago. You probably dist" sould have another than the contents of that experience, seems the harmon, consisted of a resitility of the content of the content of the tentime of the content contained no such materials, and was not fined, or "Indicating that the wave want to find does not

pass through lood.

"Yes., We might as well get a fittle sleep. It's day already. If my spartness is still in existence— But fers I'm going to make inquiries and so: if Greta's all

right. Your friend is probably last in this new world, too.

"I'we haves more passed before I slept, two nervous hours we sport in broadcasting inquiries to all authorities, and to everyone, asking for inferencies about Gerin Born. No hospital or surgeon asyndrate had treated before the world before the proposed of the proposed probable of the probable of the proposed probable of the pro

pearance was absolutely established. Jac put me to sleep with his hypoxic device, and took some model not himself. Without mechanical or synthetic hypoxicism, I doubt if either of us could have slept, so great was our excitoment and suspense. Meanwhile gatherides

all over the world were searching for Gress Boson and Gene Preston.

"But the world had other things to assend to, also. Due to the finely warning, only about thirty per cent of the world's populsion had been wiped out by the

of the world's population had been wiped out by the explosion of the brarron that had been conceiled in all insportant of thes. Great Been was not the only important person alsoing.

"Late in the source meetings for and I was a variety of the source of the only insportant person alsoing."

also by hyperstein. We lisered, with many others are securified in Read's theorems, to the words of Ene Yan, the abid Jagannes listeness of Daug Born, who had no surmed conseased at the death of the litter. "Seismongraphic department reports," indiced Yan, concession believation from the factor quantum within aware miles of South Pole, while atmuscens description of the company of the polymers of the contract reports are of the contract of the contract was described on the contract of the contract

Chemistry men report analysis of bracess obtained from Pubelsion, and are making preparation for naturalization of atom, if necessary. Physics men report discovery of conthusation of varies occasiony to destruct most. Authorities as charge report me taxes of Great Brant, harding possible capture by Bartins upon.

"I throwbons order that beam projecter of necessary

"I therefore order that beam projector of necessary strength be at once used to direct available radio waves of afficient power on Martian velacite now at Seath Pole, which same probably contains new supply of detended explanations. As ware her new breaft for historic

strain explicitly exists that Martinia are yet in ignobranes, possibility exists that Martinia are yet in ignolatoria. Executive description, using satisface code, mathemotically inspirable to be depleted by undislike persons, will communicate our discoveres and plaze to all of world, particularly in War (Council of National format dist insuring and holding secret sension in Disturn 200880 of Phololo, as accurated by our Daystment of News. Because of extreme dispers to critic constant on which, necessity zuros of titing reconstant on which, necessity zuros of titing re-

in Martine Polar Hendquarities when we capled; between at this locality, and the standard of t

er men't unchanging exterior, and it was attracted by his guida, which was perfect except for the cultistion of any and all definite or indefants articles.

The the next there have I made myself useful by ledging jac operate one of the great decoding robers that ye interpreted the messages that come from all parts of the world theoreth the other, in codes so satella and furnishms.

small though the other, in codes so called and quirtues, where the contract of the contract of the contract of the contract very few channes or of a rolline has the Martines result denote them. They taid of the mobilization of the knd, red and solitonise forces, and of the preparation of the contract of the contract of the contract of the like planes, whichevolty would, were energing great lateral planes, whichevolty would, were energing great the contract of the contract hears had passed and the Martines made to further contracts on the contract of the lateral had passed and the Martines made to further contracts of the contract of the contract

as leadership of Yun, were preparing the great beaus prod jection. Two more hours possed, and it was randy. Adjuntaments were mide and a switch was throut.

"Just then news come through my robot that all the
artis's forces had been amilitated when they reached
the darkin's forces had been amilitated when they reached

the Initiate of 80° South.

Then Yan smiled, almost. He listened to a pocket
receiver. Their victory was shart-lived, he said. Scismagraphic department report terrific detarming seven
in miles from South Feld.

## . . . . . . .

A SKING the render's indulgence, I cm again going to depart from the thread of Sherman's iterative, to try to reconstruct, from every limited information, sectorwhich Sherman did not witness. Of course it is malerstend that there is smuch that can only be positorate.

In a building at the South Pole, very small and with very thick walls, sat the Martian Offense Commander, receiving a report from one of his subordinnes. If rendered into English, the conversation was probably something like this

"The air forces of the earth have been shot down?" "Completely, Commander. The automatic antigireraft gans with those scusitive double systems of photo-

checks on each other have functioned perfectly. Every shot was effective. Few terrestrials were killed, however, as the encemous majority of the planes were radiocontrolled, carrying exploders and coses, the latter approaching our on arrest clouds threatening to envelon the entire polar regions, were it not for our operatives, in planes, neutralizing the gases with striable chemical

"Our commudes in the other space shin?"

"Were completely destroyed, as was the staff of smgeons who left here with a supply of bodies of expeured earthmen. The surgeons were storting the transferring of Martian brains to suitable bodies when the explosion occurred. Either it was due to the carelessness of some one of our scientists, or else the powers of the earth have in some mamper penetrated its secret. In either case, the situation is serious. We have lost a great

advantage." "You have prepared germ-culture number R-37s?"

"We can afford to waste no more time," said the Commayder. "Tonight all of our operatives will fly north at the highest altitudes practicable. I do not possess heights will be possible than on our red planet. They will carry with these the entire available supply of these lacteria, and will release them into the atmosphere at strategic points. They are deadly and hard to kill, Our scientists worked seven years to develop them. It shows what selective hereding will do. We shall each the earth-scientists unprepared. They have nothing to cure the hideous disease our little serms will soread. They multiply astonishingly; under favorable conditions a

minutes! "Your orders shall be carried out." The subordinate left to attend to germ-culture R-37s, while the Commander occupied bisself by studying minutely a map his scientists had prepared of the prevailing air-currents of

A short, slight figure entered the room, carrying, almost with difficulty, a slender thirtieth century girl, cold with death. A white bunchare was arrows the high foreignd. The figure hid the girl's body on a long table

at one side of the room and turned to his superior, reporture the results be lad obtained "Egyptian scientist lalled. His device for producing invisibility was captured, but was later destroyed by a

terrestrial, who captured me on the Patrician while I was attemption to take the new invention of Dwar Rose. whom I killed. "I was exotured and hypnotically forced to disclose

all I knew of our plans. World was warned in advance. Many who otherwise would have been killed cucaped from various centers of population in aircraft I escaped from my capture, stule life-disks, dropped off Patricins shortly before explosion. Narrowly escaped two persons, one of them this girl, doughter of Dwar Born. Forced the man to drive plane south, landing near the newly arrived ship from Mars. The female commander of that ship wanted the beautiful body of this airl instead of the body provided for her by the surreous. The man accommonwing the old, made a feelish attempt to protect her and was killed, while she fled toward the monoplane. I pursued her. Then the entire space ship was destroyed by the explosion of the new supply of brarron it brought. Again I escaped the Ing-mosts of weekast and came here. The sirl died from loss of blood from previously acquired wound on forehead, counted with exhaustion and cold, which she is not dressed to withstand. I await further orders."

death from fragments. Captured small monopolane and

Two persons broke into the room. One held in each hand a heavy pistol, covering the two Martines. The second earried a small beneatic device. A third entered bringing with him the unconscious form of the Marties. who had been dismissed with orders concerning "sormculture R-37."

The three were Jac Vance, Crandell Sherman, and Ben Yun, the language sciencist, BRIEF explanation is necessary. Sharman, upon

A BRIEF explanation is necessary. Someone, detailed questioning by Ben Yun, had disclosed that on the Patricies, Raymond Cames had captured a Martian soy and had succeeded in damaging the wired membrane that had covered the spy, and which caused Eght to flow around him in every direction, as water flows around a flab, thereby producing invisibility. Because of the non-explosion of the hyarron in the Patricion's rear curron reven, it was threefly mossible that the danaged membrane, production of the great Egypties scientist, might be still on the plane. Upon immediate

investigation, it was found. Working at fever heat scientists under Vun's supervision renaired the device Then a during plan to take the offersive had been conceived, and a tiny rocket-plane had been rendered invisible. It could carry only four people. A courageous pilot, skilled in the operation of porket-ships, had been obtained, and with him went You, as commander. He number of those bacteria will double itself in five took fac along because of the possibility of finding Grets Born; for hours the thirtieth century boy had been attending to his duty instead of scarching for the oid he loved, and the suspense was telling on him. Sherman did not make very clear the reason he was taken along. Three minutes after the invisible rocketship took off it

landed at the South Pole. So it was that they broke in most the commander of the Martians. Again I let Sherman take up the direct narrative. At the time of which he now speaks, he kness nothing of the events that took place in the building at the pole before he broke in with the others.

## Crandell Sherman Continues His Story

TATHLE I was covering the two Martines, Inc. saw the girl's body on the table. With a gasp who let fall the delicate hypnotic apparatus in his

hands and rushed to her side. The hypnotic device erashed on the floor. Ben Ven drooped the Maritan he had brought in from the outer room, which Martian was being carried quite easily in the herculeus arms of the bis Japanese, and picked up the thing that Inc had drooped "'Device is broken," said Ben Yun.

"'She's dead,' said Jac Vanon in a whisper, and I beard the first sob since I had come into the future I losest he blamed himself for leaving her, even though his so doing he had made the important discovery of the mexploded brarron. A wave of sorrow passed over mu

too, that I was never again to see Preston. There was a hard elitter in Ben Yun's eyes as he spoke to me. 'Destruction of hyprotic machine destroys

these Martines,' he said, and turned toward the two with the inhuman purple eyes. The third was still unconselmys at his feet. "'Does Community possess knowledge of English

innersee? Ben Yun select quietly.

Yes,' was the reply, "'Very well. If Commander wishes to live, he will at once disclose to us biffing place of large quantity of drug known as admiralin, which is undoubledly keep at this headquarters for purpose of reviving human hodies after Martin brains have been transferred to some. absence of adressiin from customery places of supply,

Spees of your planet have been expert in obtaining nearly all of and drug existing in world. We now desire to retake such valuable substance. Communder will be prompt in disclosing present location of adrenalis. "Yee Vanon rose to his full height, his face transfigured with realization and hope. The maximum dose of nurs adrenalin-injerted directly by one as skilful as Ben Yun into that cold, still heart-there was still the

margin of a fighting chance for Greta Boun-life! "A tentelising slow smile flickered on the lips of the Martina Commander. There was almost a twinkle in those red-flecked pupilless eves of purple. Somehow they revealed to me the soul of a gambler. Many of the erest erperals of history have been careliers, ready to

stake everything on a chance,

"I could lie to you,' said the Martina, 'but I won't. I could tell you that all our adrenable had been destroyed when that space-ship met with disaster, a few hours ago. As a matter of fact, only some of it was destroyed then, There is an ample stoucky on hand in this building, but it is where you could not possibly obtain it, in time, without my help. The situation is delicate. The fate of two planets will probably be decided right here in the next few minutes. There is such a thing as homor the universe over. If I should disclose to you the location of this adversalis, what terms would you offer me?

"'I do not command forces of earth,' replied Yun. But I hold influential position and command large body of men skalled in every science. My word of honor is inviolable. I have erest desire to give life to beautiful girl, daughter of my friend, now reposing in state of lifelessness on table. You permit me to accomplish that; we leave in our corket immediately for confinent of Australia: leaving you slive and unharmed, damaging in no way radio station and other great works at this heademeters. After that we recome war. I make

neoposition for sake of sixt and boy loved by her, berates I am sentimental man. Any other person on earth, even though it cost life of girl, would seize chance to kill and destroy, gaining great advantage for earth. You "'Von are confident, are you not?-that you will be

able to defeat us Martians anyhow, in spite of a few odd

dozens of centuries advantage we possess in civilization and science. You are willing to forego your present advantage because you think you can defeat us in any case? "'You say treth We have done so twice previously in spite of great advantage of extra centuries. We fishe

on native planet. You invade across wast void of strace." "Your proposition is hardly satisfactory. If I refuse

"I cause you to be killed efficiently and introcliately, Then, incidentally destroying all things here too hig to

carry off but likely to be of benefit to other Martinus arriving here. I conduct rapid adjentific search for desired "'Satisfactory. Shoot. You realize that I am only

a very small part of the Martin machine. Life or death is nothing to me nersonally, or to any high-bend Marrion. We are all working toward one objective, and loss of us will not five to see it succeed. You do not know, Earthman, that your rocketsirplane was able to come here only by chance. I throught that all available air forces had been shot down, and I ordered that our annaiscraft barrier of guns be balted and inspected for adjustment, as the sensitive and delicate photoelectric and gravitational rangefuders that qualiful our automatic gues to shoot down every one of your war planes in spite of their great and varied specifs, are often out of adjustment after a few hours of constant action. You came through them and exessed destruction, perhaps even detection. because of that invisibility. But the adjustment has all been finished by now. As you try to get out of the circle souls, the photoslectric finders won't catch you but the gravitational finders will. Also, in above twents minutes of your time, several of my subordinates will able that you will be able to cope with them at all. They carry bypnotic instruments. We Martians can use them too! That foolish boy weeping on the breast of the girl has been your undoing, for had be not dropped that dovice, you could have forced us to do anything in the world-or out of it! Now you cannot force us, you can

"The face of Ben Yun was an immenetrable mask "'Perhans I reconsider,' he said. Then-

"Yes I reconsider. I perceive that if I shoot you, I and you friends are corolly in honeless death-tran. You have astronomical relescope in adjoining room?

"'We have,' said the Martian. 'It is being kept trained upon the first of the two additional space-ships on the way from More to here."

"Recellent Please look through it, and perhaps I make offer satisfactory to you.

"Yun took one of my gans from me and pointed it at the Martine Communder. I lout the other Martian covered, using the one gun still remaining to me, and watching my charge every second. The four of us passed into the adjusting room. Jac Vence stayed where he was, still sobleng uncontrollably on the girl's still bosom. I realized then that he was only a boy, and my heart went out to him

"The Commander gazed through the telescope for alwhen he turned to us, strive though he did to conceal it. "'What has becomed to the sonce-ship, Rurthman?" "Reu Yan explained. "Powerful beam of rollio waves settlem for the state of the detonic possible explained managinering, known in detonic possible explained managinering, known in detonic possible of the state of the state of the detonic possible of the state of the state of the containing large supply of Instruor, and space-of-per is thown to small fragments. Immediately set your telesoor to view other assess four:

scope to view other apace-typer,"
"The Martism obeyed without a word, and gazed through his instrument once again. He straightened."
It has not bout harmod, he remarked. Then he holded again and started, turning almost ensetly to Ben Yun.

ignin and starred, turning aminos ingetty to hen Yun.

It too! Did you know that it was to be destroyed this
very minute?"

"I was not sure. I did not know whether or not it

contained any brarron.'

"This. In five musules that beam of radio waves will be directed at Mars, and will sweep swittly over your red planet. You see what will hoppen wherever harmon to hears made? You see what will happen in any waretowest where it is sowed? You reduction! what will

occur to say other space-flyer in which it may be leaded?"
"Your offer is what?"
"Ben Yun took from his pocket a pocket radiochone

of the latest design. "This instrument earlier me to the mark to attentive, and design in satisfact on construct of Australia. If I command in two minutes from new, audio beam in not projected. If give word of hence to delay for twenty-four hours, servertrial time. You warm your weeld by spended reals ration as this bodiety. They have bours to insulate hurron by means of load, or to depart for lensilities where haven in not proceed to depart for lensilities where haven in the process. Many lives will be saved on Mars in homosule receive. Many lives will be saved on Mars in homosule receive.

"T accept. If no explosions take place on Mars in next five minros, and you give your word to delay one earth-day, all of you may depart from here not reach Australia without molestation from me or my subordinates; and if alreadin will save the girl, she lives too. I accept. Give your orders to those in Australia!"

ulr! in other room. Do you accept?"

"Ben Yun gut in tooth with his nesissant at one and still him of the true. His orders were carried out. His sastants reported back that the radio projecte had been shat off. Yus tenned to the Coamsader. The latter tourned and fed us bank to she other roose. The other Marchin was till plug unconcloses on the door. "It will be necessary to restore be blood to the con-"It will be necessary to restore be blood to the conrection which is enough of the contraction which is enough of the contraction of the contraction

floor.

"Yes. In third room, through door here to right' realled the famoures.

"Were well then. Throw the litrid sween in the side of the Bolle year. In the size they previous of the flow will be seen a size they previous of the flow will be seen our relationship of the size o

activity, examing it to take up the work that the bloodpump performs, restoring life.

"Yes. And where to find adrenalin?"

"I saw the Martian dominanter he-have the briefess

fraction of a second.

"You will find the adernalis in other Martian lottles
of larger size, sucked on third shelf from the bottom.
Sixen capturing it from various piaces on the earth, we have purified and rebottled it. It bears the momerical
label, R.S.25.

S HERMAN again left us to answer an insistent phone call. While we swited for his reappearance, we discussed his story in low tonce. "I don't believe h," said John Stevenson as if trying to convince himself, "but I know Preston disappeared a long time say and hum't been looused use. But I don't

believe it."
"You're a lier," stated Ralph White caseally. "You do believe it, but you don't want to admit it."
"You're probably right," admitted Stevenson slowly.

on street I, say you now won't so acres in a contract of the probably right, admitted Sevenson slowly, "I do believe it, in spice of my common sense. I'm going to get a firthe of water white Sterman's phening. He back in a minute."

Robb. White temed to me in his superior superior.

"Geing to publish this too, Cleakey?" he asked indefently.
"Perbays," I replied, "though I'll probably after it somewhat. I may even insert a split infinitive."

I may even meer a spat minitive."

I terned toward my friend William Simons.
"I'm convinced," be said, "but I wonder if I'll believe it tomorrow, in broad daylight?"

John Stevenson returned, learning with news, "There's according odd going on around beer. Crandell Stevenson literated to that phone for three mines without sparing a word. There he left bere so quick that he din't have three to take his hat freen the direction. I cought a glimpoo of his going town Market Street in a Quoder City Cah. I wonder what in the Comment of the Comment o

(Continued from page 311)

laboratory door He bened up and the to the culture. With one sweep he shut off all the generators at once. Then he

burried to open the door. There was his wife, and belief her, two brave men

Behind him, the picture had faded, and the hum of the renerators was delive down. Her he had shot off the power so abruptly that the wast room was full of swirls and executes. A blast of air blast out of the door and the windows rattled. His car-drams clicked

with the stalden reassure. Papers blew short: a stack of them swirled off his desk, and his but circled out of the window. Blue halas crucided and whirled conveybers. His wife swored at the rush of sir, but received her

supreme calm at once. "We couldn't wait," she said sweetly. "Here is Mr. Rescribal and Mr. Trasky of the Amalgamated

Amusemouts. They say that they never got your letters about the machine at all. They were so excited when I told them what it did. They have a check for a million dollars all ready written out for you. Ten't that wonderful? I know you won't mind the interruption, will you dear?"

Professor Grimm stood and stared Markly. Confusion reared in his head and he could not speak. He could not think. Sell the Integrator? Lose Amoranth? Be muerable? Was it worth a million dollars? Which

his wife would spend? On the other hand, he ought to be working. And this thing had kept him from working. There was the problem of solar power. His university and the selen-

"Charles?" came his wife's voice through the cloud tists over the country were expecting things from him on the solvert. He was rather advanced of himself

He grouned. He couldn't decide. His wife stood there, a jewel of the modern art of beauty-making, paging up at him to a kitten wight back up at a policeman. The two men waited respectfully

He put his hand to his forehead and sat down at the board of the Integrator. He reached out for the "resterns": he must have a look at them. An iew shock shot through him. They were not there!

With a gaso he remembered the papers flying out of the window. Out in the darkness the wind still tossed a few shrets about.

He leared out. There were white sheets floating on He sank back. His "notterns," those sheets of caper

covered with calculations, giving the settings of the stork-rose and the milliomperages-

He shrugged his shoulders and pulled himself toeether with a sudden movement. He turned to the surresement coagnates. "I'll take you up," he said quietly. "Do you want a

domenstration? "Never mind the demonstration pow. We know you. Let's close the deal right up."

Professor Grimm signed the paper and took the check from the fat, md-faced upp. The two men barked out of the deor lifting their hots as the Professor's wife joyounly threw her arms about his neck.

"Solar power," he was thinking, "Tomorrow Pil have to look up Langley's stuff on the pressure of THE END

## What Do You Know? READERS of AMAZIN'S Systems have frequently commenced upon the fact that there is more actual/carningles to be gained through reading its pages than from Many a temphoda. Moreover, most of the sporks are written

is a popular vois, making it possible for anyone to group important facts. The questions which we sive below are all answered on the pages as listed at the end of the questions. Please are if you can answer the questions without looking for the answer, and see how well you shark in you can asswer the knowledge of science.

From what point of view can matter be exendered imaginary? (See page 294)

purposes a

- 2. Does the raising of vegetables and anymals for food
- What are some of the inconsistencies which can be found in our system of law-making? (See page 202.)
- 4. What elements of stornic roture are unaward to take place in but stars? (See page 306) Can we suppose transmittation of marrier to take place in a Coolidge Tube? (See page 208.)
- 6. What did Moscley's and de Broefis's investigation
- 2. What is a course cloud? (See new 300.)

- 8. What period of decomposition was be assisted as wraterary? (See page 333.1 9. What extres the electrical resistance of admikum to
- vary? (See page 333.) 15. What are judy expandions? (See page 233.)
- Assuming force rays to exist, what would Newton's law of action and reaction tell us about them? (San page 354) 12. What is the name of Neptere's record (Set man
  - (See page 362.)
  - 14. If two force erro were house in diametrically alto directions from a body sad one was ent off, what would happen? (See map 366.)

# a m 1 n

IN this age of scientific and inventive progress, which sometimes borders I on the miraculous, it is difficult to keep abreast of the newest "replacement." Slot machines have replaced human change-makers; mechanical cleaners now do the work of numerous workers. The screen-and now the vitaphone-have made possible the simultaneous showing of entertainment in many cities. It is now equible to stay comfortably in your home the while you listen to the best in music and talks. And television-when it is perfected-will undoubtedly revolutionize many of the recreations of the future. But all of the improved means of amazement are subject in great measure to the temperamental whims of the performers. Perhaps some enterprising young inventor, devoting himself exclusively to eliminating this troublesome feature, will strike the secret of the perfect robot extertainers That would call for revolutionary measures, indeed. And certainly it is not impossible in view of our present progress,

## Illustrated by MOREY

"I was one of those delightfully cool evenings in Tentour funit . . . for here it was, in the Year of Greee, 1950, and I am setting old,

Standing in front of the tall, pier mirror, I surveyed myself from tip to too A wildower, with streaked, gray hair; face a bit wenthful, thank Heaven, although not come the vivacity

and verve of the younger man, who went to glorious France in the Great War. Other wars had occurred since then, but, owing to

inluries suffered in the compaigns, in which I had been openred. I was unable to take any active part in these latter upbeavals. Seating myself in my favorite chair, I took a tohacco careagle from the tobocco-ior, and, placing it in the

little poff-pipe, a touch at the side of the pipe, and an electric spark had ignited it. It was uncommonly fine tobacco from my son's plan-

tation in Siam. The American crop of toluces had practically become extinct, due to the elusive, festive Japanese bertle, that had its first incubation grounds at the mouth of the

Delaware River, back in 1927, thence spreading into Delawore, Maryland and Virginia, on the South, and New York, Connections and Maine, on the North, There was some Burley tobacco left, but of a powdery consistency and quite unripe. I learned over and took from the bookease a volume

on the War of 1940 between Russia and Italy, However, I felt ill at ease, and throw the book back

It seemed too wonderful an evening to remain indoors Learning back, my mind reverted to enjoyable evenings

of the past . . . of the days of the cinema and sound devices now long since forgotten Few people in 1930 had had the vision to group the

fact that the constant experimentation with synchronization of moving pictures with sound and talking, the would overtheow the dynasty of Frimdom It had been a source of keen approvates to me that films had become so excinct as native tobaccos-

Well, it had to be, I suppose. Did not the mod escale of my grandmother's age rise in rebellion woon tallowdips, replacing same with the gas flame, and later with

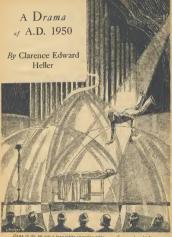
By man's own individuality, his own superiority, his irrotoclastic ideas, he had, in his attempts to insprove the drams and moving pictures, created a machine that had overthrown their programmers.

Of course, master minds immediately were connelled by the loud outery to devise new ways to assuse the masses. It had remained for one Sigron Philo, an assure thanker of advanced years and beain, in collaboration

with a young gettine, in his face thirties, by name Trevos Manthias, to evolve a plan that would revolutioning the spoken drams of stage-humans and of the screen as well, that had so desaily folled Philio, like his predecessor of surjouity of the same

name, thought it fitting that Greeks and barbarians alike should share in any absolute good. The rich and the oper would benefit by his wind Inversions Philo recollected that back in 1928, man-

kind first began experiments with mechanical contrivances called "Robots." Did not one robot open a national fair in 1929? Did



Down in the pet was a long white operating table. . . From a door high up in the wing the robot doctor entered,

not robous officiate at cornerstone lavings; proxied for speakers at languets and commencement-day evercises; By accident then had the young assistant. Trever

Matthias, one night stumbled upon a great secret, All that long night he had toiled in the laboratory of the erest Philo, and in the morning hild before his superior, a robot that almost resembled a woman! Heretofore all robots had been musculine

Matthias wout one sten further . . . he evolved sex-

yet in such a delicate manner that man's imagination could renorive no evil upon looking at her beauty, For, in the pencases of the years man had become accustomed to look upon his brother and sister as one family, miras sex, the same as flowers dwell together

His female robot sang exquisitely as any diva, and in any language desired

She could also walk, dance, execute consortions, fly, climb, circle the ceiling. Naturally, the same principles were applicable to the midt rebet

Philo was inhibited . . . and the Press that night cave its entire first pages to the discovery. I laid down my puff-pipe upon the stand, blew out

the last clered of montipoless smoke, and arose from my seat. It was a wooderful age in which I lived, and what

WANDERING similessly about my room, on idea presented itself to me. I would descend to the floor below and pay my respects to the Van Swaggers.

I immediately was carned on a circular platform to the Knocking upon the Van Swaggers' door, a reflector

overhead corned any impression to their living-room, and soon the door opened, and admitted me, A robot took my hat and cost, for I was dressed

The family greeted me warmly; the elder Van Swapger had been playing a game of international chees with an opponent in Switzerland, over the wires of the Atlantic Cables, Incorporated, I did not interrest the game, but watched him take a hishop, as he talked

into a receiver, and balted his victors some six thousand "Won't you listen to the closing numbers on the photophore, Alonso?" queried Madame Van Swagger,

who had known my wife when she was living. Did I omit to mention that my name is Alongo Heoburn? Pardon my emission

I thanked her, and inquired for Miss Dally Van "Is she going out?" I asked, feeling a trifle

disagra "Oh, no," raplied her mother, "just dressing in case company dropped in." "I am not company," I hughed, at which the mother

I culoyed some of the singing of the concert prorram, which was being broadcast by the Photophonic Process, Ltd., of Great Britain, founded in 1935. Young Tom Van Swagger interrupted the concert to ect a hall score of the indoor haseball game then in

Tokso, Japan, before an estimated audience of one Again the name proposed and at this impeture. Miss Delly Van Swagger, a denuire lady of some twenty-six semmers, but appearing to be but eighteen, made her appearance, gowned in soft white, hare-footed, and with hair braided down her back. She greated me shyly, because I am old enough to

be her lather, although, when I tell her this, she always grows angry and says I humiliate her before the

"Why don't you two young people go into town and see "Flamingo, the Great Extravaganea," at the Times Square Community Theatre?" queried the mother. At the word "young" I gave the mother as arch look, and Dolly cutching it, turned on the pivot of her

receres in Toronto, Canada, with a rivid team from

foot and took a seat near the Photophone "Will you accummany me. Miss Delly?" I countly asked She affected to pout for a minute, then terned to

me and smiled her assent "What time is it now?" inquired the mother. "Just eight-thirty exactly," I responded, gloseing at

the brokens dial on the ceiling "You have one-half bear to get there, and Dolly will take but five mirrates to change to street or theatre aprarel," said her mother "Where shall we so?" asked Dolly of me

"Your mother had suggested 'Flamingo,' " I reminded "Oh, was to be sure," she replied, reddening under

"Well then, dear, be off, for you ought to be in your agets by time o'clock," her mother answered helddy-Excusing her lovely self, the white-elad Miss Dolle rang for a robot, and presently a ferrale appeared, who,

couring a door, rescoled her mixtress to the help chamber. Ten minutes later a vision in cerise appeared, in the person of Dolly, appropriately garbed for "Flamingo." Here I must member that in this period the lather

all dress in affectation of the central figure in a drawn Inastench to the ster "Florrings" was earlied in a rich

rouge, women affected that shade in attending Miss Dolly was dressed in brilliant feathers, of a hin-ohmount, mosibly. Her head-dress was the same She were sole-slappers, of course. I did mention, I

had hoped, that shoes and evering slippers had long since gone out of date for women. Tom Van Swagger was now listening in on an ice-

bockey same broadcast from Sr. Moeits. Thus, both father and son were contacting Switzerland at one and

Mr. Van Swagger appeared to be having difficulties, however, for his brow was furrowed in does study, as he just grunted a "Good Night" to us.

Once one in the corridor. I touched the key and both eraspine the role, we steeped on the circular platform and were conveyed to the first floor.

Walking to the doorway, we emerged into the road night air, and taking Miss Delly's wrap. I threw it

around her white shoulders. Pressing a switch on the outside of the hotel, a door flew up. Depositing two spheres of metal in a slot, we descended one flight, and took places on the moving It was a bisnesh ingrees of fifteen mirrores and Dolly amount herself elancine at the electric displays in the underground stores. Far below us we could distinctly here the coar of the vehicular reasie tube.

I T had been my thought to attend the premier of "Flamingo," but I have an aversion to hope, everflow crowds. The Merning Electogram, which daily flashed the news to me across my diring-room wall, told me the morning after the permise that fifty those

sand nersons had been turned away the night previously. Alighterur at Engineerent Street use took also seculafor to the street level, and repressing a circular brilding. in which were located some two thousand families, we

What a wast place it won!

Seating seventy-five thousand persons a contributor rostrooms; a restaurant where good meals could be obtained at the seerinal figure of only two dellars per place; baths; manager; colffeer; hospital; fibrary; tearooms, smoking-rooms; interestional telephone service; bridge-whist room; termis courts; photophonic concert

rooms in short, a report for kines. Upon the roof of the building was assembled build a fleet of sirboats, that come and departed at all hours for

distant points. The show would begin recepted at sine e'check, and it lacked but a few minutes of the bour, Observing on the frame which was located at the fourth side, West, that seam fourteen and fifteen were

vacant, as indicated by red fiches bearing numerals, we made our way, unattended, course at the designated tally light at the row entrance. We enally found our places, which were distinguished in the sessi-glosen by male, wellow signal-lights aton each seat. Upon taking our places, the signal-lights were automatically extinguished. Surrounding the theatre were large, unright mirrors.

probably fifty feet in height by twenty feet in brendth, The show itself was reflected in these mirrors from the front or Master Show. Scots in the Master Show

People sat in tiers, in the scirror section, one elevated above the other, with perhaps two thousand souls in each

alababetically arranged parties Our costs byreared to be directly in line with the

Master Show. THE lights were sudgenty examples on the stage level, disc, forty feet in diameter, under the stage level, broom to receive abusin. France and feature it metated

until faintly the notes of sourie could be beard. Attaining full speed, beautiful harmony floated are over the This instrument was called the Ombosium, which

broadcast music direct from the Picudilly Circus Dance Then propose percentile it should over to the

latest "hit" . . . the thone song of "Flamingo" . "Red Love" It was a some concerning a levely weenen, whose beart, pierced by the knife of a rejected lover, was sutured by the skill of a dector's needle. The doctor, you may be The blood-dress had ceased to surge with the collapse

sure, was mostly in love with her.

harmony scheme of red, as the doctor strove to revivify Now, the music cented absorber, and in the darkness I felt the tiny hand of Miss Delly timpily steal into muce for mutual protection, as it were. I gripped her little hand more fervielly than the occasion demanded, as which I felt her stravele toward me. Suddenly a vertilest or of choice below our should a haves tipe, or from the mow of a slave-ruley .

and a trooped number . . . broadcast by the Underseas Photoshone Subsidiaries, of Great Bretain and India. The lifting targalizing notes of "Europemia, a Scole Charmer's Dream of the Ganores" caused the scottered sudience to sit up in articinance

Illuminated signs at each side of the box-stage tranounced the nussical numbers.

From the box-stage good, which had usumed the armon and familiar stage of the period 1930 near de tros. hret rose-culored curtains fell back, disclosing you

drowned-of scenic spleadors A plantation scene in Africa . . . a chaoring of a soleme direc, by invisible voices . . . and then, in a bute of links the control figure in the brilliant spectacle of "Flamings. the beautiful robot Mile. Flaminge, pircuetted across

start on the too. "What a bengiful woman?" ciarolated Muss Delly, "She is not a woman, but a robot," I surwered, to

her austrement and unhabet "You are jestice, Alono," she sowered coffing me by my first name, and thrilling me, old fool that I am Of overso, the injection of radium-iron had taken twenty

years from my appearance, but, deah it. I was no forcer I dismissed such thoughts as unbecaming, and turned my mind to the brilliest personnes of the Drama.

Simultaneously, allow me to recurion, in each mirror that I have described, the action of the Master Show was being faithfully rentmond. A young men sected in front of me tilted back his

reclining, wicker-chair, and sighed deeply, Now, from her lips engrated, for more gloriously, I will odmir, then any busine shaper ever had attempted on the old symplectical acress of the Thirties, so suchainally illurical . . . the levely votes of "Red Lose"

I closed my eyes, lost in a reverie, communed by the mAlimits of the spice It eritard Miss Dolly, too, for I persoived when I

connect my early that she was staring at me like a startled This was the identical number that the Orphonium had played as a Prehade.

From the serious of the box-like stage defined executive phanton robot shapes, each one taking up the chorus, until the playborne wheated with the harmone

From the Deaf Section, in which those, who were so unfortunate as to be deprived of bearing, were seated, the cut-in waves of sound, from the Arlamal Hearn-

me to a complet common the committee that have supported appropriate touchtake, may sufficient For the blind, let me add that there was a reserved.

rays of a Spectrumoscope, located on the criting, and penetrated the brain-cells of each living person scatted thereis. This reproduced on the extract retira images

AMAZING STORIES of light, that easy them intelligent equipm of the Steam

Thank God for these inventions . . . Deafness and Bändness removed from Man, who had evoluted high enough in the recens of the things of the Course to

Miss Dolly and I signed some delicious tea, which the The lights blinked, and we deposited our cups and samours in a groove, under our seats, a chain-elevator immediately taking them below to the bitchese while the emost down un middy The fifth scene of the fifth action disclosed the stage

female robot suppred to perfection

changed and set . . . with a maryalously contrived amphitheatre, containing row upon you of seats. Robot students could be determined burrying each one

to his pince. Those in the pix was a long, white, operating-table Miss Dully errored when the increasingly errerish Sight betrayed the form of Mile. Flamingo, stripped of all embelishment, with the blood of the convenied

wound upon her breast. My reader must remember that through due processes of investion we had arrived at a state of nerves, whereby

we were able to witness sights, that in 1930 would have prostrated the entire audience. From a door high up in the wise, the robot Doctor, gurhed in nurulation wine gown and covered head, now

ensered, followed by two purse and three interne robots. The Doctor faced the gudlences . . . every eve and car He began to ning, and the borden of it was that his Love was cracily dead . . . and he then bull raised her

so that the thorounds of witnesses could perceive the truth. Her heart, yent in touin, was lifeless utterly, and he same of his hopes that their love, descined to be so yet. could survive the grave The embryonic doctor-students now rose in a body and chasted the awful direct of "Corona Delicti," a sort of

litany, as nearly as I could guess at it, willing the outstance of the terrible offered to the dead A crash of manic . . . keved to its fullest extent . . .

an wast to volume that several prisers in overhead chandelies becks, and narrowly expected deing serious mischief as they fell upon the soats to the Doof Section The Orphonium was now playing, in all its awful solemnics the world-formed Rehabilitation March from

the "Souls Affort," by the Corntor of the Roscorch Decortment of Oxford Maneum.

THIS was, let me explain to the un-World. The Cursice, alded, of course, by his profound studies of the spirits, had succeeded in establishing communication with Liux, and from him, had obtained and ing in the other. Linerally, therefore, "Souls Affast" expressed the thorne. Of the sublime feeling of the body after death . . . that never more can be assessed with its

Soul. The Soul, being immortal, and the body, corrunchle and of the dust, most forever leave the third corresponds and become a thing, regogate and apart. Many would not believe this truism, but the bonest Curator had explained, quite satisfactority, to many horizon of

Jupiter and Mars, that a perfect development like the Soul carner more inhabit an imperfected development like the Body, after worms had eaten the flesh

In the atmosphere a solid shape now may cooking study wishes which in researchly feshion leadly perturbed that the surre of the robot Ductor had brought it almost from the boundaries of Spirit World.

receive direct messages from his Cremor. But, I must not digress in this monner, except to rive was some ideas of the marvelous improvements of the cra-

SCENE Two then burst upon us, and again, the staw oracefully as a human being, performing ountertions hitherto unknown, and unstrempted.

Bird-Nee robots now descended from the colling of the theatre, and where they came from I never can determine. They circled the yeat surferens, dancing, twittering, chirping, and from ministure photochosic cells

affood with melody I cannot, of course, attempt to describe the entire

three-hour performance. It shall suffice that I shall tell you the high lights of the beautiful, transocralingly-lovely, Extrawagunus,

In the fourth seeze, of the fifth action, occurred the murder. Heads were erasted forward, and Miss Dully placed her head on my shoulder, to which I made no objection The theme some once more creek over the entire house, with its taughed tale of red leve, played by the

indescribably beautiful Orobonium, and taken up by a charge of these bundeed solute sales harst from their habitat, and floated about the theater, tuoo invisible wires, each one seeming a living thing of loveliness and rong A bush fell over the excited audiences, as the lower

of the spectacle, the robot Doctor, arrived in mid-air, funition . all in red and invested effects, scientilla laterat. When the hird alighted upon the stage, he sprang from

is and can open to Mile Warnison. Proceeds benefit onered by the knife of the assessin, she lay a beneatful thing of nity. The robot Doctor recoiled from the sight, and his orief was pathetic to behold. Miss Dolly assured me, in vehement undertones, that she felt certain he was human.

Ourse stoom I compressed Man Dally by tellion her the Doctor was a robot There was an intermission of this part of the program of fifteen mirutes, and as the hundreds of thoseunds of lights proceed, as if by maric, brilliantly lightley the

scene, we were against at our large audiences Every sent was occupied, and none were standing. for it was a rivid ordinaries of the relies department of the creat metropolis that each negative result be accept.

or no ticket was to be sold. There was a special box reserved for distinguished quests and royalty.

Someone in the audience, with ferret eyes, detected the inventor, Simon Philo, in the box, and the admisers present demanded a speech. He was very self-conscious, however, and to all the

demands, was adversed. He arrow and housed assessed

Robots appeared in the sisles correlar mokins, and wheeling ten and office wagons.

The robot Doctor, with demoniscal bugh, caught the spirit, tucking it into the wound, which he now deftly closed, and tied the threads. He again faced the audiences and in his eyes was a Spriorn hope. "I have recalled, by the Miracle of Love, the Soul of

my Beloved. Had her body been corrupted. I would have suffered instant annihilation for my temerity. But, her lovely body is still preserved. Without the spirit, which is the Soul, even though my skill could produce hip itself. my work would be as naught. For, who would wish a

Love without a Soul?" These words be called forth, ending in a great solt. The student body now took up the burden of his

desprier, cheming, in union . . "For, who would wish a Love without a South

We could almost bear our own hearts beating. Now, the descair of the robot Doctor began to turn

He advanced to her form, secred at it keeply, then

cried, in a mighty voice. . . . "Look! LOOK!" . . . Mademoiselle Flamingo was actually rising from the

table! With one white hand to her heart, and guileless, as

her lovely body faced the immense assemblace, she smiled at her robot lover. "You live, you live " be asked her, incredulously, now that his work of love had been successful

"Life for thy life," she answered, sweetly, holding her arms out to him for his embrace. "Red love, Red love," . . . and with these words, he

gathered her form close to him. The student-body now song pagons of joy Celestial masic radiated to all quarters from a bor-

monium, suspended in the center of the theatre ceiling, some seven hundred feet over our beads. Gradually, as the startled and semi-hypercrized audiences guzed with strained eves at the scene, the robot

Doctor and Mile. Flamingo, still in a tight embrace, were wafted, mysteriously, into thin air, the bejeweled bird, "Flamingo," lovering over them until they were lost in the sunset. Amid a prespende of divine music, the amphitheatre

scene melted out, as ice dissolves troop a window-tune under the genial warmth of a freshly-lighted fire A shower of levely flowers now fell upon every one of the meny audiences Among my souvenirs of this brilliant Extravorante

there is left a rose, which I took from the scented bair of Miss Dolly, which she allowed me to knee, The audiences of seventy-five thousand versoes arose and cheered like mad.

In the Master Show section were possibly fifteen thousand souls and in the Mirror and Special sections sixty thousand souls

TOW the theatre, as one unit, rolled back upon its binges, so to speak. Glass door after glass door noiselessly rolled upon each other until all was one vast, CONTRACTOR CONTRACTOR

amomatically stuk into the floor.

hand, and shaking mine cordially I introduced Miss Dolly to him, assuring him that "And the Show?"

"How are you tonight?" he asked me, extending his "Exquisite," we both answered in one breath. "You know," he begun, taking a chair with us, and accepting a small glass of wise, Ziegfeld, the glorifier of women of his period, purped his houses icto mbot shows. But, ah, they were marvelous! His did not, however,

There would be no danger of penic with such pre-

Later in the picts a dance orchestra dispensed music

to those who cared to pay a slight fee, and dancers would

be gracefully scarrying over the very places where we

We made our way to a grill one level below the theatre

"To think" said Miss Dolly, her face flushed, while

waiting for the robot waiter, "what a marvelous show,

I was glad to perceive that the entertainment had been

It did seem inconcervable that anything mechanical

waitress interrupted my musines and Miss Dolly's

"I am grateful for these robots, Alonso," Miss Dolly

"One does not have to be, er . . . jealous of you

I hughed heartily at this, and cut a eigarette from the

Cigarrettes came on long ropes, some forty feet in

After a few minutes I discerned the Manager of the

lesseth, sillow me to explain, and at each clip of the cutter

theatre approaching, whom I knew intimately,

fascinating men even though the waitresses are so

conocaled eigaretze-string in the mechanical elegarette

It was now a few minutes past twelve o'cleck.

I ordered some choos, toest and wine for two

could act with such precision without one flaw.

floor, near the moving sidewalk

solely with robot artists.

eathmisstic comments

"And, why?" I asked her

one had a freshly cut smoke.

quariatly remarked

charming.

produce on the same extravagant plan as I do in the Community Theatre." I nodekel my bead, correctendingly "When a robot orened a national show hack in 1929. it occurred to me then that they would feature in a big way in the theatrical world.

I can recall many amusing situations as the public first began to become acquainted with the new world marcal, the robot. Our night Zigefeld told me that a certain rich twoe of starcstruck Johanny of those days

was much enamoured of a beauty in one of his choruste. Zicofeld was then remains in several female robots was almost correctne by the overwhelming greatness of with his acts, and the manner was laurholds in which the audience would try to detect the human churine from

Well, this certain devotee of the show waited outside

an hour in a pouring rain, on West Piftieth Street, and when a lovely lady emerged to step into a cah, he rushed

forward and throst a because of orchids in her hand, After the suffences had made their exits, the seats

which contained an expensive ring concealed among the

# The Message from

### By David M. Speaker Author of "The Disintegrating Ray"

REAT strides in the field of photo-electrics have been attained through the Just of selenium. That does not mean, however, that there might be no other element in existence with stronger photo-electric properties than selenium-strong enough, perhaps, to make possible enormous distance radio communication. If one of the eleasts are inhabited by intelligent beings, or forces, or substant, interplanetary radio communication might become an actuality when such an element is discovered. Mr. Speaker is well known to our readers. In this story he combines excellent writing with plenty of science of unusual interest.

# Illustrated by MOREY

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### Prologue

PTER I had sweltered in the torpid city heat for . over a mustb. Wadson's letter almost made me believe he was inspired. Needless to say, I jumped at the apportunity thus offered me to spend several weeks with him in the

automobile. "It's great here!" he exclaimed, "Hunting, fishing,

beating all season. But there's a surprise for you. I've brought over a regular laboratory and I've "A laboratory? I pever knew you were interested in you to bring your puraghernalia out to this place? Must have been an awful job."

"I throught it would be a surprise " use! Workers "Von see. I've conceived a sudden passion for physics and chemistry in the last year or so. I accidentally met one of my old professors and we got talking shout science and so forth. That was the beginning of it, and I brought a lot of stuff along with me so that I could work uninterreptedly." "Well," I exclaimed, "you never do things by halves,

do you? What's going to hoppen to your lonely guest while you are pottering in your laboratory?" Wadaon smiled "I suspect," he said, "that the 'lonely guest' will be

bears that there is a twelve-tube combined radio and television set under construction there " By this time we were passing through the driveway leading to Wadson's house. The brilding was coughly rectangular, with an adjoining wing for the laboratory. "How would you like to see my lab first?" Wadson suddenly saked.

The laboratory which we entered impordutely was a room of modest dimensions, but its chemical equipment was complete. The whole place was littered with chemicals, bealery, tubes and bottles, but there was little that bure testimony to any interest the owner might have in physics. I said as much to Workson

"Yes, that's true," he answered, "for you see I got the chemicals and chemical apparatus first. Then I started the physics end with the television set. As a result I forme everything else but that. Look here," With these words he attracted my attention to a closet at one end of the room and opened the door. Within was the largest

immense scanning disk was equitored with lenses after the latest pattern, and the whole machine was connected "Looks nice, doesn't it?" he princed.

"It's really arent," I replied, "and it must have cost a good deal. How large an image does it form?"

"Well, it cost me about \$250,00, including the radio and teles, but it is not quote finished yet. The image will be about three by three and a half inches when magsided. Not very here, you see, but it will have the adwantage of being clear and free from distortion. I may arrange to have it projected on a ground-glass acrean." And thus I whiled away the evening in Wadson's compuny as he enthusiastically pointed out the different fen

But here I find myself digressing from the self interested in pottering in the laboratory himself when he specimed task which I have set, the narration of the Message from Space, which has created so much interest and discussion in various scientific circles here and abroad Therefore I will year on to the first episode, the

> It was towards the second week of my visit that we went to had rather earlier than usual one night, having planned a fishing trip for the next morning. I was sad-



the surface

denly awakened by a deafening roor, immediately followed by a terrife costs. At once I immed up and raced to my friend's room. As I switched on the light, I was harrified to see Wadson bring unconscious on the floor assidst the rains of his bodroom. A hasty examination revealed that his head had been his by a fulling picture, but in a few mirrotes he regained consciousness. Now that my anxiety was relieved, I inspected the damage more thoroughly. All the evidence pointed to an explosion. The bed and other furniture had been knocked over and great lumps of plaster had fallen from

the walls. Wastern was by now completely recovered from the shock and he come over to join me. "I colo had " he said. "Dan't you think me had better on around and examine the rest of the house?" "If you're all right, I guess we can. What, do you

"I can't imagine. I don't keep nitroglycerine or dyramitt lying loose around here. Might have been an earthquake," said Wadson, "An earthonake world have lasted longer and besides, my room wasn't even touched. If it were an parthauake, the entire bonse would have been demolished." Too then

a large piece of plaster fell from the ceiling, narrowly

grazing my arm. "We really ought to get out of here before the whole thing comes down," Wadson observed, "We will probably find the cause when we investigate." As we samped outside into the corridor, the full extent of the damage became apparers. That section of the house near my friend's room had been almost exceptetely destroyed. So

far we had been unable to assign any cause to the de-"It's fortunate," said Wadson, "that the lab waset's rained. As it is, there is still enough of the house left

to Eve in " "You seem to take it pretty calmly." I prowered. "It can't be helped and we might as well make the best of it." And with that we continued our inspection. The docreay at the end of the hall was blocked with fallon débris which prevented our further progress in that

circrition, Thereupon we turned to another opening. "It seems to me that I small smoke," remarked Wadson, "and I believe it comes through here," industring the charmeted doorway. Even as I looked I could are faints

"You're right," I said. "The place must be on fire and we had better get around there at once." In a few momeets we were out of the corridor and at the other side of the door. At first I could see nothing but cholden, blinding corrects of smoke. However, the gray will was to set a clearer impression of the wreckure. The roof above had been crashed in, leaving an irregular opening facing the sky. Just below it was a similar hole in the floor which now revenled itself as the source of the smoke. We descended to the ground floor. Here the vapors were almost overpowering, but by the aid of hastily improvised one masks, made of wer towels, we

succeeded in approaching the suffocating area. There, in the very cruter of the swirling wreaths of woos, we were astenished to see an enormous siece of red-bot metal amouldering in the rains. "A meteorite!" The thought had occurred to both of

us simultaneously

"We had a narrow escape that time," said Wadson, "It might have crashed down on one heads just as well

won't have any trouble in that respect. And now I'd like to make an analysis of the meteor." With the aid of a few buckets of water, we were able to epench the last sourles and flames around the great probin-By this time the metallic reson had cooled to such a degree that we were able to make an examination. With great care we detached from it the clinging bas of plaster flight through the roof and carried it into Wadson's laboratory, where we deposited it on a bench.

as here. There isn't much of a fire, fortunately, so we

Even a superficial analysis of the substance was enough to show that, as in the case of almost all other meteors, it was metallic iron of a fair degree of purity. My friend, however, was still unsatisfied.

"I'd like." he said. "to make a soccroscosic examination. That would be the quickest way of determining whether there are any other elements mixed with it such

as carbon and silicon. Accordingly he made preparations for his analysis His method was very rimple. He removed a small portion of the metal and bold it in the flame of a hydrogen

blast-lamp until it was red but. Then he examined it with a direct-vision spectroscope "Nothing unusual that I can see," said Wadson,

"There are faint traces of sodium. Of course there must have been more of that element priphable has it was mostly humaed up in passing through the atmosphere. Or wait, I think I see something. It looks like a slight disthe instrument, though. However, it may be semething I'll try snother spectroscope," Wadson rose and walked to a near-by cobinet where he kept his more delicate pieces of apparatus. He took another spectrospoor and through it secred intently at the glowing metal.

"Same discolaration," he said. "I think I'll take a specimen from popper the center of the meteor," We drilled a large hole to the interior and succeeded, after much labor, in extracting some borings from the bottom This, too, he submitted to a spectroscopic analysis While he looked through the eye-ciece of the instrument his face changed. First a puzzled look, then a glenm of

triumpi "Bill," he said, "I'm pretty sure I've discovered a new element Just come here a minute." He bunded me the spectroscope and hade me examine the elegator bit of metal. Without a doubt be was right. Close to the star-

row sodium line was an unfamiliar band of orange. "Yes, it looks as through you've discovered a new tle-We'll have to call it 'wadsonium' in your honor. from the Solar System at all, for of all the citatents

found in solor meteors so far, not one had been previonsly unknown on the earth." "That increases the value of the discovery," told Wadson "Now I'd like to separate some of this new element from the others and determine its properties,

both abysical and chemical." BY this time it was almost four in the morning and

excitement, but it was only with the greatest difficulty that I perseared Wadson to leave his meteor for a while When we got up the next morning I wired to the nearest city for a segrad of workmen to repair the damaged 327.81. It was about three days later that he amounced that the atomic number was 106. He was radiate with for. "You see," he explained, "this indicates not only one unknown element but a whole series of them which must exist between urnaium, which has an atomic number of

rate work, would never think of attending to such trivial

satisfies of the true scientist he was evadually arriving

Meanwhile I spent most of my time worthing Wadson's proceedings in the laboratory. With the skill and

92, and wadsonium, whose number is 106. Fourtoes, in fact. However, due to their high atomic weights, they are probably very unstable and that would account for their absence from the earth at the present date. It may that unusign does to radium. Of course then it would very likely have a large half-period and there might be traces of it somewhere on this planet that haven't been

found yet." "How do you account," I solved, "for the fact that almost all of the wadsenium came from the interior of the meteor? If you remember, specimens from the serface only contained minute traces."

"That, " said Wadson, "is a matter to which I have eiven considerable thought. My theory is this. The motore must have originally consisted of wadsonium only, but during the course of its wanderings through space it encountered wat numbers of very tiny meteorites, cosmic dust as it were. These syndually synvitated towards it on account of its superior mass which, previces to its passage through our atmosphere, must have been engagens. Now you may picture this life charge of

wadsonium embedded in a tremendors shell of infinitesiand particles, largely consisting of iron. Then, as it traversed the carth's atmosphere, the mass borns to slow and finally to fuse. The wadsonium at the center began to spread itself through the entire mass by diffesion. But before this process had an opportunity to set name than a start, it hit the surface of our planet and slowly cooled, with most of the wadsonium still in its original clace."

"That's splendidly worked out, but . . ." "Yes," interrupted Walson, "it's only a hypothesis and there are a great many 'hete' in it. Anyoney, it really doesn't matter very much. The important thing is the wadsonium which I think I have succeeded in separating

almost completely." With a smile he held up for my inspection a small glass-scoppered bottle which was about two-thirds full of a silvery metal looking just like magnesium. But there the resemblence ceased. Magnesium is remarkable for its lightness, while the half-pint or so of wadsorium smst have weighed almost twelve pounds. In my surprise I nearly dropped the bottle. Wadson smiled.

"Heavy? That's the offeet of the high atomic weight." "How does it behave chemically? Would you call it an active element?" "Rather active. It decomposes stram at high tempera-

tures and displaces hydrogen from cold dilute hydrochloric scid. In the air, as you can see, it forms a thin film of the oxide which prevents further corresion. It's

times as ald as this planet. No doubt, as I said before, there are considerable quantities now existing, but they at a number of important conclusions regarding the are most likely to be found below the surface. Than the man in change of the repair work came in to tained its atomic weight and was not a little surrorised to ask about one or two particulars resumbles the record find that it approximated the compensatively large number struction and our conversation was broken up. As I had to drive into town later for some symples that were

but my friend continued working in his laboratory even long after I had gone to bod. The next morning he was julilant, although pale from lock of sleen.

"I have discovered," be informed me, "that wadsonium possesses a new and astounding quality which I had not previously suspected. I among you know that the electrical resistance of selenium varies as the intensity of the light falling on its surface increases or diminishes This present has been rest to various uses in a limited way such as turning on lights automatically when night falls and so on. Now the electrical resistance of washonirra is also variable, and quite by accident I found that it depends. His scienium, on the influence of electro-mar-

extreme shortness as those of light, are between one and four meters long. Don't you see the significance of that?"

netic waves; but these waves, instead of being of such an "I wonder if it mishes't be applied to radio in some way. I understand they have been doing quite a lot of experimenting in short wave transmission recently." I looked immiringly at Wadson "That's inst the idea. You see, I plan to have a wad-

sorium cell in series with the incoming tuned signal. The ability of the cell to conduct electricity will yary with the strength of the radio wave. The rest is obvious, "But that is reactically what happens in a regular radio tube. A very alight change in the minus potential of the grid produces a great abgration in the place voltage. While

the principle is different, the general effect is the same. I fail to see how your odl is going to revolutionize the radio industry," "You are inspetting," said Watson, "the superior sen-sitivity of my device. The vacuum tube is really a crude affair. The necessity of using a heated filtment to provide the electron stream imposes a good deal of courtieation. Some radioactive substance such as radiom wight take the place of the filament as the data ensurations are

really a flow of electrons. They could be separated from the other rays by respects. However, an arrangement of this kind would certainly increase the cost and for that resoon would not be very practicable. But I think you will find that the washanform cell will be much superior to the ordinary tube " Then he went to his laboratory where he had spent nearly all his time since the fall of the

meteor.

T was on the following day that the first wadsonium cell made its appearance. After a solitare morning walk I visited my friend in the laboratory to see what procress he had reade. He was bending over something on a busch which absorbed all his attention. I called but he did not seem to hear use. Then I noticed that he was wearing a pair of headphones. As I went over to him he removed them while he made some adjustments on his you think there is the least likelihood of this occurring?" Wadson smiled. "Well," I said, "what's new?" "I see you have been reading the Sunday emplements

Wadson held up the object on which he had been work-"Here," he said, "is a wadsoriron cell," It was in the form of a glass tube about six inches long and two inches in diameter. The top had been drawn ove to a point and sealed off while the bottom was tapered so that it would just fit the UX radio tube base to which it was attached.

I took to be wadminium. Is there a vacuum meide?" I asked

"No. lust nitrogen. That is because I found out that

the film of the oxide which forms in the air has in some way a harmful effect on its sensitivity. It was easier to fill it with nitrogen at atmospheric pressure than to go to

the trouble of exhausting the air from within. As you can see, there are four terminals. Two of these are connected to the incoming signal while the other two are connected in series with a "B" battery and some sort of cone or load-speaker. It happens that in addition to my twelve take set there is a smaller one which I beworks alone just for short-wave work. With a few chooses

I believe it will suit our nursose exactly." In less than half an hour Wadson had made the necessary arrangements and we were ready to test his new tube. The set was specially designed to operate at a range of one, two, and five and a half meters which included those lengths influencing the warlsonium cell. It was not without a certain excitement that I guard at

the core speaker which had been connected to the set. My friend turned the dial beginning at four meters, and gradmally going down. At first there was nothing but a low humming sound. I asked Wadson what caused it, and he began to say something about induced currents in the cell when the monotonous drone was suddenly broken by

a sharp, irregular crackling. He turned to a lower wavelength. Nothing, Again

he twisted the dial. Still nothing. By this time he was down to two and a quarter meters. "You see," was his comment, "there are very few transmitting sets working on such very short wavelengths. Possibly one or two radio cathusiasts are trying it for the sake of the newelty. Of course if waders irm is ever found in sufficiently large quantities, and it wasforming cells become popular, then all of the present broadcasting systems will be forced to change to shorter wavelengths. In previous experiments I found that it is possible to differentiate between two signals artificially produced in the laboratory when their wavelengths are very close together, thanks to the wadsomen cell. Therefore, there will be little fear of interference, such as might be expected, if all transmitting acts were to be limited to a rease of three and a half meters. I have succeeded in

tween their wavelengths was less than one-seven-hundrouth of a moter and I have no doubt that he the god of new improvements I may do better yet. Well, I don't thick there is much use in going down any more until we build a transmitting set which will work at such low wave lengths."

"By the way," I said, "while we are on the subject of radio, I have been bearing so much about the chance of receiving a message from Mars which is sureceed, by

in the preympers. As a matter of fact, recent evidence does not seem to confirm the earlier views as to the possibility of the planets being inhabited by intelligent, reasoning beings. What is more, any radio opposis they evold send us would most probably be unable to peretrate the Heavyside layer unless they were of an exceedingly short wave length " "Your last objection would be admirably answered by

the special qualities of the wadsonism cell," "That's right," said Wadson, "all we need now is a ratio operator on Mars. Well, it's petting late now. Perhape we had better go to bed."

I fell asleep almost immediately and it somed only a few minutes later that I was awakened by Wadson. As I turned sleepily around I could see that he curried a flashlight in his hond.

"Bill," he whiterend, "I think I heard voices in the lab. There must be burglars there and I hate to think of my precious wadsornum cell being ruined by some careless crook. Here, take this." And he slipped an automatic into my hand. Together we stole silently down to his laboratory

Unmistakably there were sounds of voices or rather of a voice. It was an amusually high-nitched tone for the proverhially stealthy thief. The language was unfamiliar We tipted into the laboratory through a side door. It was dark. I drew the oistel and Wadson held his torch in readiness. Suckienly he snapped on the light and the brilliant beam darted around the morn "Hands up?" I shouted. Nothing bayconed and the

voice continued to prattle away. Wadson switched on the room light, hat we saw no one. It was only then that I realized the source of the sound. "The radio!" We stared at each other for a moment

and beens to burt "Well, Bill," said Washon, "that's one on me. I much

have left the switch on by mistake. But I would like to know where that voice comes from. I certainly never heard that language before. It might be wise to take an impression of it. I have some of those repeat-avoice chaparraph records with which you can do weer own recording. In that way we can get an accurate copy of the rest of the speech." In a surprisingly short time we had the phonograph with the blank records taking down the talk. About an hour and a half later the weign stopped.

"HE next day we drave into town with the records THE next day we drove mo were who as friend of and submitted them to the inspection of a friend of Wadson's who studed languages as a hobby. He had mastered no fewer than forty-three different tongues and dialects so we had no doubt that he could enlighten us as to the philological classification of our stronge specimen. completely accounting two signals when the difference be-But he was as baffled as we were. However, he was very much interested when we told bim the winds story and he promised to come to the laboratory that night to listen to our mystifyme speaker should be talk seein Before returning, Wadson bought a Heral supply of the blank disks to enable us to round whatever might be

Wadson's friend came up at eight o'clock and was led at once to the laboratory. The voice started very much earlier than on the preceding piohs. At a courter of some people, to be inhabited by intelligent beings. Do nine a low musical note issued from the cone as though a piano key had been pently struck. After an interval of five minutes the mysterious voice spoke again. The tone was rich and clear and the speaker petered his words evenly without any trace of emotion. We had the phenograph taking down an entire impression of the mes-

After an hour he suddenly turned to us and said: "It sooms to me that I have beard this before. Yes, I am sure now. The person delivering it evidently considers it of importance, repeating the same speach every

night. This thing has me puzzled, I'm afraid, for I carnet properly these words with any hornage I have ever heard. If you don't mind, I would have to have a complete impression. There is a certain Professor Harold Rice of Oxford, who is spending his summer near here. As his field is the Science of Laurennes, I am sure he will be able to give us a clue to the identity of Mr.

Wadson readily assented. Accordingly the records were placed in the hands of Professor Rice who promised to give us his expert opinion within a few days. A week later, when my friend and I were absorbed in

the intrinsics of a choss game, we received a visit from the philologist accommunical by Professor Rice. Both of them seemed to be keyed up to a birth pitch of excita-

"Wadsto," said the former, "the thine's storendoes. After puzzling over the records for almost a week. Proferour Rice was unable to find any corresponding known language. In short, he was forced to conclude that the sounds originated in another planet."

Washon nearly jumped from his chair, "What?" he cried "That's right. I was surprised, too, but there's no other way of explaining it miess we are going to suppose that we have been the victims of an elaborate neartical inkewhich seems hardly likely. You're sugar to be fameras now, old man, whether you like it or not The Professor will tell you how he was led to this conviction."

"It really wasn't very difficult. The use of the radio clearly indicated that the sender must belong to a highly progressive race. This at once removed the necessive of considering the hundreds of dialects in use by the various savage tribes and thus considerably narrowed my search. I was unable to find any source, even remotely corresponding. Of course you may argue that this bearmen may be a secret one, in use by some society or other. But then why should such a group go to the troshle of learning a whole new language, when a simple code would seffice for transmitting radio messages not intended for outside ears. Then, knowing the gigantic power of your radio set, I thought it very likely that the sender was the inhabitant of another planet."

My mind was in a whirl. So my chance remark to Wadion a few evenings back had some foundation after "I think it would be very interesting to try to decipher this message. You know, it may be of importance. Den't

you think so, Professor?" Then I suddenly realized that the philologist had rust been avealeing "Oh, beword a doubt. It ought not to be so very hard, We have material enough to work with. It will be an enjoyable way of spending the vacation. Come to my house tomorrow morning, and we can make arrangements. Mr. vise you to encourage anyone che to listen to our planet-

any communicator.

"A little professional icolousy," I threads. "He is airaid someone else may succeed in decishering in before As it was late our cuests decerted.

"Wadson," I said as soon as we were alone. "I newer passected that one wadsenium cell was so powerful. At the time when you first tried to use it, you only expected to receive terrestrial signals, and yet the message we heard must have come from a point many million strikes away at least. The wadsonium sense be thousands of times more sensitive than we ever supposed."

"Yes, I thought of that, too," said Wadson, "The metal may be under some external influence. We might go over and investigate." We did, but at a first plance there was nothing out of ordinary that we outd see. Then at my auggestion. Wachen closed the switch and, as we had not changed the dial setting, the unknown voice metantly projected itself into the room. My sleeve accidentally knocked over the cone speaker. The flow of words and

denly stopped. "What's that? I must have pulled out the connection "No," said Wadson, "you didn't. Something else went wrong." With those words be picked up the cone and

replaced it in its original position near the radio. To our immense surprise the strange voice auddenly resumed its tireless monotone. Wadson imphed a fittle. "I see it now. It is the action of the magnet in the

speaker on the wadsomum, I'm pressy were," He nicked up a big horse shoe magnet and held it near the wadsonium cell. The increase of sound was marked. "I never suspected anything like that before," he exchained. "This wadsomen is full of tricks. At any rate,

it coess a new field for investigation." As if to prove his last words. Wadson took off his cost and at once procooled to test this new physical property of the metal with what materials he had. The net result of all his experimentation was that the extent to which the wadsonium was affected was inversely proportionate to the source of the distance between it and the marnet.

IGHT days later we were the recipients of another E visit from the philologist and Professor Rice. After runny long hours of autonive work they had succeeded in almost completely translating the message. When I try to describe the excitement at this point,

words fail me. The whole thing was tremendous. The subsequent shock produced when this veritable hombshell was thrown into the civifized world is well within the memory of most of us. Wadson's laboratory at once became a Mecca. Had be wished, he could have sold his wadscuium at the time for over \$15,000 per milligram, but he generously gave all but a small specimen to the Bureau of Standards where its various properties astonished the staff. At the present time, however, it has been ascertained that considerable amounts of this metal are to

be found in the earth, in some places, at a distance of less than four miles below the surface. Plans for its recovery are now under way. All of this was secondary to the worldwide interest Which was created when the translated message was route

public. The planet from which it was sent, far from being Mars as I had at first suspected, was proven to be o satellite of one of the remoter stars of the Milky Way, whose distance from the earth is only to be expressed in thousands of light years. This last fact is suggificent, for it means that all of the events described took place many centuries are said the voice we beard speaking belonged to a person, dead since the time of the Pharaolis.

When the faintness that a radio signal must possess after traversing that great sold of space is considered, we can only wender the more at the extreme sensitivity of the wadsonium

The translation of the Message from Space which inilows is undoubtedly of great importance. It suggests new and terrible methods of warfare whose almost unlimited destructive potentialities would be an answerable arresport for World Peace. It brings to mind the possibility of finding on other planets than our own advanced forms of life, with which we may some day hope to communicate. But it has always seemed to me that the most important angle from which to view our interstellar message is that from which the sender considered it when he transmitted it, namely as a warning His ennstart repetition of the whole speech would alone be a sufficient mark of the extreme gravity of the situation presented in it.

However, I will not venture any more private original on the subject, but I will leave the reader to form his own ideas after his permal of the Message from Souce.

While reading the following it should be keet in mind the words have been found to here on there of the words there there been been to have on

#### The Message from Source PRIXTON LESTEX of Astron. on the last line

ine recessestative of my civilization. The following history is intended primarily as a warning—a wanting to overy planet in the original on which exists civilization. And for this reason it will be eromend twenty-five times at intervals of one day. Every civilized astion which this message may reach is continued to be tants of a dark stor which is as a distance from us of 120 000 000 portors 5

Before relating the events connected with the exposest of Astrax, it would be advisable to vive some soull account of the state of our civilization at the time of its downfall, so you may better understand the existing conditions.

subject of our intellectual provisit has above here accesses. but one aim in life-the perfecting of Astraician civilization through the salvancement of science Countless years ago we had tapped the wells of anticcular energy This proved insufficient to satisfy our demands. Atomic energy was released long afterwards by whose aid we performed mighty engineering feats which would have seemed impossible before. The whole surface of Astrax was practically made into one huge city whose sources rose bundreds of feet into the sky. Gant air liners plowed the upper layers of the atmosphere, lowled with freight and passongers. With our atomic energy we were able to build great space-fliers with which we colo-"Travelute"s Nos. The weed series enales traveledes had it would see to correspond to our terrestred term, field now. The light year of Januar would, of corres, here a different raises tolks our core.

sixed several neighboring planets. Down below, at the lowest levels of the city, dwelt the scientists mon whose labor rested the mighty structure of our civilization. Our government was simple. A Planet Ruler was relected at results intervals of five years by a council of one beendred who also acted as an advisory committee. Its decision

At the time of the invasion I was a sub-inspector of the landing stages for the interplanetary vehicles. This position kept me constantly upon the upper level of the city. My work was most important although easy. Each day I personally examined each of the street in my division. This means that I had to make sure that the entire surface was free from any obstruction, which might injure a flur on impact, and that the crew whose duty it was to take charge of the ships on their series was afest and reads The mechanism of these space vehicles was not at all

complicated. A method had been perfected for increasing the power of magnetic attraction to an unprecedented degree. The power of repulsion between like poles bod been similarly developed. Reneath the lowest levels of Astrax a great magnet of gigsentic power had been placed Since our scientists had found a way of concentrating the magnetic forces of attraction and repulsion to the form of a ray, it was a simple matter to copin store skins with such says. One of these corresponded to one pole of the marnet and the other to the other sole. When the fier was pavigated, the marget formed the base of a huge triangle of which the flior was the vortex. The ship instruct of the rays. It may interest any scientist who is bearing this account that the experiments first made force is around in one direction, there results no count force exerted in the opposite direction. The force used was an explosion. Small parcels of explosive compounds were placed at various points about the surface of the vehicle. The detoration of any of these would cause the fier to move in the direction opposite to that in which the explosion was applied. Unfortunately, the resulting

rases, due to the intruse cold of interstellar space, first liquefied and then froze solid, elogging up the explosion

chamber. This necessitated a system of artificial beating which acrossed practical actory. Hence the adoption of the later method.

The fliers were in the form of long cylinders with homisofurnical ends. One ray machine was placed at each extremity but both were controlled from a simple cubin as the from. There is little to be said about the From the earliest historical times, the most important further details of their construction, except that they induded every convenience for the benefit of the occurrents. On their arrival from a voyage they would maneuver so as to gain a position directly above their respective landing stores. Then, slowly shutting off the repulsion rays. they would sink to the surface permitting those within to emerge. As the outer envelope was a vacuum between two layers of a special material, it can readily be seen why it was so important that the landing stages he kept It was a magnificent sight, especially in darkness, to see those giant fliers dart in from distant planets marn

stages and finally settle down to rest, while their lights. "Note. This corresponds to Newtyc's third her of notice. The famous Cashind reduct, working on this private, but true her suggested as a more of planetary strengther,—C. H. Watson,

THE first warring of the invasion came one night when it was my duty to report to my secretion, the Superintendent Inspector of the Associated Interplanetary Landing Stages of Astrax, to cuete his full official title, His name was Plutor Onnex AOSX, which latter symbol denoted his rank. He was much perturbed over something, although I did not done to ask him what was wrong. On his deak was a chart which automatically

risomer in the darkness, cast would shadows over the

whole scene,

recorded the positions of each of the space filers in service at the moment. For a while I stood in silence while he studied the object before him. "Printen Lestey APID," he said sublessing me but

my full name. "what is your proort of the condition of the landing stages of top level 885, section OR97, division X13486?" He invariably used this complete formula, al-

though he last known me personally for a long time "Everything is functioning satisfactorily, sir," was my reply "Hum. I'm what was at least can say so." With this enignatic remark he absurdly stopped the conversation

and bent again over the object on his dealt. Thinking that he wished to be slone. I turned to the door. "Just a moment, Lestex, I may wish to speak to you in a short time concerning some important matters." I returned to my former position before his desk and waited respectfully until he was ready to address me. For a time he did nothing but case intently of his chart, checking the various positions of the space fliers by means of a table which he kept constantly on hand. Hevond a

self a while, he turned to a virinhous which recorded the image of the party at the other end. "Section QG12, division KM2937," he called into the instrument. In a moment the face of the official in charge of the indicated division appeared in a small disk mounted

"Mentel Projeck ADSC," said the Superintradent Inspector, "you will have a fast inspection flier ready for

use at once with a crew of these. Include a Weston my "Yes, sir." said Montel Prolack, "I will see to it im-

mediately." I may here explain that the ray machine passed was the invention of Dolor Wexton, a scientist of the lower levels. A beam directed from such a machine had the property of disrepting the attens of any matter with which it came electrons. The only substance immune was hadmore. which processitated that the part of the machine from which the ray was projected be made of this gas in solid was beyond the atmosphere of Astrux where the cold of

space kept it below the freezing point of hydrogen. Pletor Omnex then turned his attention to see. "Prixton Lestex, I am about to entrust were with a grave mission. I have found you loyal and intelligent and therefore I have no doubt that you will bend every effort towards making it a complete success. Now come here," he said as he indicated a place at his side. I walked over to his desk and looked at the chart which he had been examining. The principle was simple Each flier was represented by a tiny dot of light which moved at a fate proportionals to that of the marking it indicated

The chart was divided by a system of emerine lines.

position of a flier at any given instant. "Source ship #A38E36, extor 216.45.72, lextor 45.

"All right, now look at the position on the chart," "Exter 216.4294, Jester 45.70.L."

"You see," said the Superintendent Inspector, "something is wrong. I tried to communicate with the pilot, but I could not not in touch with him. The marriet rays might have gotten out of order and that would explain the ship's being off the correct route. In my official especity

it is my duty to check up on the flier positions. If anything went wrong I would get the blome for it. This is the first time that the chart did not exactly correspond to the table I should like to have this matter arranged without letting it get beword my department. I have, as you will remember, ordered an inspection flier with a Wexton my projector. These impection ships, that is the newer models, have a speed of 8,000,000 sectors per day which is much faster than a standard flier. You will, therefore, present yourself to Mercel Prolack ADSC, section OG32, division KM2973 with a measure which I will give you. He will put you in charge of the fiter and samply a every. It will be were duty to overtile state shim #A38B36 and find our what is wrone. The details will rest with you. If you encounter serious difficulties

shone sie at once. You may find the Wexton my machine useful if you must any Drolls. That is all." ] saleted and left with the message in my hand The Dealls were the inhabitants of a reachy almest who had refused to adopt Astrologn civilization, but instead grew to be a warlike race. They had once succented in capturing one of our fliers. From it they learned the socrets of its construction which enabled there to build a flect. Hence all small ships were engineed with Wendon rays for protection. Mennel Prolock was busy when I arrived at his division.

but, when I sent word that I had a message from the Suprintendent Inspector, I was immediately ushered into "Where is the message?" he asked. I handed it to

"Are you Proxion Lestex?" he inquired "Yes, I am." "WVX168662004," he said. To this I replied:

"4000%68WVXM." Mentel Proteck smiled.

"That's right. I see you know the pass-word. I suppose you understand your duties?" "Perfectly." "Fine Here I have the fier all ready for use with a

erew and Wexton my machine. You are to start at once. Goodby." He indicated the inspection ship, which I entered immediately. There was a crow of three within in addition to the operator of the ray machine. In a few moments I made the accusintance of each of them. Ioll Randor RZ7G4 was the pilot, Raim Kortock C63Y7 and

Mexter Brellion OS285 were mechanics whose duty it was to see that the magnetic rays were always in yer-Then Ever and holes probably reservoired to senseling the tiple

338 fect order. Clenton Stretor R91B7 was in charge of rays, although it will make it hander for Stretor to use

I slid the door shut and in a memora the ship was on its way. Since it was enripped with an automatic chart such as the one I have already described, it was a simple matter to follow accurately the movements of the ship we were puriting. Constant reference to a table overvisced me that space ship #A38B36 was following an erratio course. Day after day we seed on, always reducing the distance between the two dats of light on the chart which represented the fher we were to overtake and our own. Inil Randor was a most excellent rider. It so honosped that just at this time a giant swarm of mercura had crossed the crist of Astrax so we were constantly menaced by a collision with one of these bodies, but

Randor's skill always evoded the donner. ON the third day I was awakened from a sound sleen by Clemno Streme. "I am sorry to have disturbed you, sir, but I am afmid that there is a fleet of Droll fliers about 21,000 leaders (seiles?) ahead. I don't think we can everpe those for

they are surrounding us on all sides." This news anpoved me very much. Personally I would not have trinded a fight with the savare Drulls, but the ruccess of the expedition was of supreme importance. "Tell Jell Randor to put on full speed and try to break through their lines. Be ready with the ray ma-

chine in case he doesn't succeed." "Very well, sir." Strotor saluted and was gone. In the meantime I reviewed the situation. Here we were surrounded by the Drails who would hardly lot us off without a battle. But I had orders from the Sunevintendent Inspector which admitted of no delay, so it would be impossible to turn back. We must go on. We stern equipped with a ray machine, it was true, but on the other hand, the Drolls had perfected an instrement, which projected a beam capable of raising the temperature of our fier to the builing point almost instantly by excising

the molecular motion of its component substances. However, in space of this we mast go through By this time I could clearly see the enemy fliens in the distance with the sid of a telescope. Now the Drefts were only 8,000 lenters away and we were approaching them every instant. At this stope of my reflections, there came a knock at the door and Stretor entered.

"Sir, it will be impossible to pass thom. The only way to avoid a fight is to retreat." At this last word I shock my best decisively. "No, Stretor, I'm not turning back. It will be up to

you to clear a path through the enemy for us." "I'll do my best, sir, but if one of their heat cays gets us we are done for."

"All right. You had better go and tell the others to be ready for action." I lookof again in the direction of the Drulls through one of the windows and estimated their distance at about 350 leutors. Already I could see them during their terrible heat rays, but since they were only efficient at short distances we had nothing to fear from

ray machine was situated. Stretor was bending over the apparatus making some final adjustments. The pilot was standing next to the instrument board by which the movements of the flier were controlled. "Randor," I said, "I think it might be wise to adopt a rigger course. It might help us to escape their beat

"That's all right, sir," said Stretor, "T'll monage without any difficulty. Our escape is of more importance than a possible victory." Accordingly Randor made certrin monone and I felt the firer every to and fm as it darted about in various positions. While it did enable up to chade their heat rays, nevertheless they kept us constantly under the place of the newerful searchbolts with which their stoor ships were entired. Since our exact position was always known, they could begin to close in on us and I saw that a time would come when we would no longer be able to dodge their rays. I signaled to Seretor to begin projecting the Wexton ray before our fores run too close. It was well that I did so, for alreads

the flashes of their offensive weapons were coming un-

comfortably near. After a few moments we had the satisfaction of seeing one of the enemy fleet sufferly begin to glow violently and then completely eramole un-This opened a gap in the surrounding line through which Randor attempted to lead our flor. Unfortunately be was a morecus too late for another Drull ship rushed in to take the place of the one destroyed at the exact time we were passing through the opening. There was a terrific crush in which we were all thrown to the floor. When we root, the ship with which we had collided was gone. We were through the gap and safe. No, not entirely safe for Stretor had found that the hydroren attechnent of the ray projector had been broken off and at the moment erbetance in the ship. Therefore we raced soward as fact as the filer could carry us. For a while the Draile followed an elessive continually flathing their heat rays But they musted us each time and gradually we drew away from our enemics, leaving them for behind, of our pursuit was only 45,000 lenters away, so we were able to slow up our read rush and thus gain an opportunity to inspert any damage that we might have numered during our fight with the Drulis. I was re-Beved to find that nothing was broken or injured, with

I made an effort to communicate with the ship ahead of us, but was urable to receive any restorse. For a moment the possibility floshed across my saind that the erew night be dead, but then I remembered that the natomatic controls would have bent the flier to its eograe in evert of such a mishap, and as the pilot room was securely locked on all of these hir shins, more of the nosseneers could have interfered with them. But the filer was dearly off her normal course and the deviation was continually increasing at such a regular rate as to make it appear the work of some intelligent agency. Meanwhile we had drawn so dose to the

the execution of the hydrogen ray projector. Since I

expected to obtain more hydrogen from the space ship

when we came up with it, this did not warry me great-

ly. Now we had only 32,000 lessors to so before we

opertock the flier, so Randor again reduced the speed

of our vehido

space ship that it was only a matter of moments until I want down to the control room where the Weston we would be altournide of it. We were just about 137 Jestory behind when Randor turned to me with an "Sir, our filer does not respond properly to the con-

"Are you sure?" I asked. "Yes, it would seem as if sorinone has cut down on the power of the magnet ray, If I may venture to suggest at, I would advise that you try to get it tooks with Astract and cell for an emergency ship as the controls are getting lander to measure every misseast." The control are getting lander to measure every misseast with the control of the instrument from the shike on which it was noting and personal a round lever. There was no exposen. The indicates light which glorare when the bearmoner way for we wan not like. I cannified the bearmoner way that the control of the cont

I went back to the central room,
"Randor, it seems that you're right. The space phone
doesn't work although it's in perfect condition. There
doesn't appear to be any power being transmitted from

Astrac. What is the corrore?"

We are moving parallel to the shap ahead of us although at a present spaced and I can't do anything so change our direction. There is no doubt that our filer is being guided by some power beyond our central. And we, in adhifict to the magact ways beling to furnish, the power impulses are consign to reach us, and we are respected for the immediate feture are neriveled al-

The that case, there is solding we can do shoul it as we may as well take a real. Then we'll be in heter condrons for wheterer happens sext." Below I say down I wallad over to the spose chart in sorterin the position of the filter should of it. I was rather surveide to specified the same of the same of the same of the specified of the same of the same of the same specified of the recovery mediates of the two shape consistent Randor's assection that they were traveling in purellel corrose. Then I sank down and fell askees, blew larg I slay I have no loke het justing from the disease. See large I slay in the same of the same same of the same same of the same of the same of the same of the same same of the same of the same of the same of the same same of the same of the same of the same of the same same of the same of the same of the same of the same same of the same of the same of the same of the same same of the same of the same of the same of the same same of the same of the same of the same of the same same of the s

THEN, jarring my sleeping train, came a load, impaint changing of the space phone bell, while mistigater light continuity flated on and off, showing that someone was at the other end of the line. My first thought was that the purer impairs had reserved operation and that the call was either from Astrax or from the this sheet of the state.

playe. The subsequent sentence confinence that is sufficient control to said any futient industrate saiding, "the subsequent saiding," the value legan, "I night as well legan by telling you make they proved at a controlling space, combining the control and a controlling space, combining the control and a controlling space, combining the control and any control any control and any

you are islowing will sharily lead you to my plants where coverpline up the breads early including the transact source of the breads of the relating the transact source of the breads o

celerated by certain means at our disposal and the course

our suggists.

It is needlass to give an account of the succeeding days which passed until we reached the planet Extraor. It was a repetition of what has just been recurracy alternate speculation and darmation regarding the Super-

it was a regionate or when they are seen receiving, interests specialists and domains regarding the Squeet Intuitigences of Sciences. On the twenty-first day of special test which we have been a seen of the see

so that the other five was still in its relative position.

"Then was related nearesterino begins to decrease as we were gothly deaved soon to the surface of Extreme terms as more persions. I could see a free the blokkense become in were illustrated such a did realised to be a surface of the surface of the surface of the surface with the surface of the surface. At this point the bell guaranteed into the surface. At this point the bell guaranteed into time the sport place and the surface where guarantees guarantees are the sport place and the surface where gain begins as the sport place and the surface where gain begins as

spek! "Them deep shalts which you see cacous showed entquarter of the length of the dissentir of Entroe and two cycle into cache, within an En below the surface there open into our circle, within an En below the surface the control of the control of the control of the control gravated toward the center, as this plants in pieces of strongth and through with does, curveness piles which could be considered to fallow the tumospher as it grades to compare a considerable assents of the total volume. Thus the control of the control of the control of the control of the shall be control of the control of the will not be able to leave your ship until you reach the base to most of the shall which you are now deconding. These

will not be able to leave your ship until you read: the battom of the shall which you are now descending. There is nothing you can do be to write till you arrive. When you do arrive, I will send further instructions." Imasselpostly I told the crew of the sucreedible mea-

sage. A whole civilization buried henderds of Irester below the surface of a plane! But that fire our own a affairs were of more direct interest to us. On loaking, through our of the side visiones, I could easily see that we were rapidly falling down the great shaff jost as the work but of the country of the same of the country of the work of the country of the country of the country of the work of the country of the country of the country of the work of the country of the country of the country of the talk in the country of the country of the country of the talk is the country of the country of the country of the use of the country of the country of the country of the use of the country of the same of the country of the country of the country of the country of the theory of the country of the country of the country of the country of the same of the country of the

were so near.

The descreat through the short continued for some time, and while we winted for it to cense there was a secret deal of discussion and speculation concerning the surpress of the Super-Intelligences of Extraor in concerning two Astrahian filters. Randor thought is might be

some sort of a boox, but I was not of this organism. In all seemed very much in earnest. With this idea in mind. I excefully enjoined the crew to show no signs of hos-

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tility when we arrived at the city. Force could be of no avail in the very stronghold of the enemy. Only by gaining their confidence and trust could we hope to improve our situation. To this they all served. Arain I looked through the windows, only to perceive that we were still traveling down that seemingly intermetable shait. However, through the hottom window I could see a trint glow, and then I knew that the city was close at hand In a shorter time than I had expected the ship came to a sudden halt, and I saw that we had barded on a creent platform surrounded by rows of powerful listes. The other fire was so close that I was about to leave our vehicle and run over to it when I hard the bell ring

again, calling me to the phone. "You are warned." the voice heave, "not to leave the filer, under any circumstances whatevers, until elses permission by me. An intringement of this command subsequent proceedings through a window. They will concern the other flier which came with you." As before I informed the even of what I had just beend Then we all went to a side window which faced the other

space ship. For a while the platform was vacant except for the two fliers. Then for the first time I was un Extracian. I thought I was presured for any suct of strange creature which might appear, but the thing that amazement.

MAGINE, if you can, a small, green sphere glowing with a necessar phosphorescent eleum and propelling keelf by darting slender purple rays from various points on its surface. The Super-Intelligence slowly associa towards the other flier and halted a short distance from the door. For a moment nothing hancened. Suddenly a small and disk of high superced men the ton of the sphere. Somehow I felt that it was concentrating all the cower of its mighty brain men the occupants of the space ship. So great was the intellectual sower of the Extrosian that even I, although not the intended recipient of its mental communication, could sense the command which it wished to convey. Thuse within the flier were ordered to leave it and to come down to the platform. The door opened and one by one they came out and climbol down. I recognized some of them, since their flier did not use any of the landing stages in my

division. As they left the shelter of the ship they sufferred no ill effects. From this I eathered that the stmost here and the provitation of Extress were very similar to these of Astrax. Then the pilot of the ther and the Extrosion earried on a mental conversation. By this I mean that the intellectral canacity of the Green Sphere was so great that it was able to read the thoughts of the Astrakian even before they were translated into speech. On the other hand, the ideas of the Super-Intelligence were so forcibly transmitted that, even to the comparatively dell mind of the pilet, they were elect without being orally expressed. Of course I could not read the

"Dumnos Veltrus, pilot of space ship #A38836," be gan the Extresion, "as I have previously explained, won have been made a prisoner, after with those with you. of the Super-Intelligences of Extrose. I did not, at the time, make the reason very clear. Now I will received to do so." From this preliminary speech I knew that those in the other fier had received the same messages from the Extracions that we had. At once I was all attention, for now I was to know the snawer to many perpleasing questions that had always been troubling me ever since the beginning of this strange adventure. I eng a hasty glance around my ship and observed that the crew was no less interested in the proceedings than L. "Our whole surnous in bringing was been," resemed the Green Globe, "was to ascertain whether you would he able to survive the Extresian conditions of temperature, atmosphere, and gravitation. Although, as you can readily see, the experiment has been an unembried succose, its object must still be a mystery to you. We on Extrose have always been a . . . What! Do you dare to interrupt me to say that was object to your detention? Do you think I brought you here because I thought you

been mentally protesting about his capture so vividly that the Extrosian had lost patience with him. However, he decided, at last to continue his explanation, rather than permit his anger to overmoster him. "We on Extrose have always been a most adventurous mor, although you might not draw this conclusion from a cursory glance at our securingly ineffertual bodies, these globe-like objects. We have certain mechanical extensions which enable us to do every things which would be beyond the power of an intelligent sphere. For example, we could convey to you shoken words over the sence obser, although we are without month organs But more of that later. As a result we have made quite a number of phasetery conquests, somewhat in the same way that you have done. However, nearly all of them

have been very unsatisfactory. The atmospheres of the

would like 2?" It was picln that the pilot must have

imaded planets were not like that of Extrose. We were forced to use certain arrangements for taking some Extrosist atmosphere along with us. For even an Extrosion needs pir, as the cells of his risenes must be constantly burbed in this fluid. This unforturate defect removed any prospect of their colonization. This has immedial us to centure you and your space thin in addition to the other one which came with you. As wa can assurently use our atmosphere without inconvenience. we will easily be able to adjust curvelves to years. I understand that this short account will leave many thirtee still encuplained. How did I bring your space ship being these apostions will have to remain unanswered Let it suffice to say that to a Super-Intelligence many things are possible that to an ordinary round would seem incredible. Now that we have found that the conditions existing on your planet, which you call Astrax, are of it. After all, it is a case of the survival of the fitteet. No doubt was wonder that I divulge all this so casually,

her you may remember that your information will be of no avail, and even if you were to escape and warn your planet, it world not help in the slightest degree. That's all fur the present." Then the thought impulses of the thoughts of the pilot, but those of the Super-Intelligence Green Subere ceased and the red spot laded and vanwere obvious and, therefore, I can only give a one-sided I was stormed when I realized the full import of the message of the Extrosian. There was absolutely nothing to be done about it. Escape was impossible. Even if we not through the shaft, they could easily draw us back as they had done below. I surveyed the groups on the splane. Now. Now a white they noted about 1 Host made with the form the section of the sect

a novement and dropped to the floor. Then the Extration addressed first to me.
"They are all dead, killed by the power of mental anggenition. I trust, for your own sale, that you will have the wholen to vestor no such attack yourself. The inman first acquaint the trushers of the Seyment Consolid of Retrieve with the successful results of the superiment. I taking both a before come with me, for I good are it alone you will principle of the trust-less and complicate matters." At those words I are the fire and allgaber

ohere was almost exactly like that of Astron, and I experienced no discomfort in that respect. There was a peculiar, purgent quality in the air which I later learned was due to the seescare of a mis unformed on my planet. The Globe led me to a small chamber at the bottom of the platform, which we entreed. I could see nothing but a large, pleasing square on one of the walls. My cantor seemed to concentrate all the power of his mind on this object. The red disk glowed as before and soon a ticture appeared on the square. I could discorn a dimly lighted room in which were two long, shelf-like chiects. On each of these was a row of Extresions. I took this to be the Sunrene Council which had been alluded to before. This room, too, had a square placed on one of the walls in which I could use the imore of the chamber in which I was. One of the Globes at the extrems and of the row nearest the square rose from his place and moved over to it. At once the end was which I knew so well began to gleam, and I surmited that the two Extrosians were having a mental conversation. But the thought waves used were so faint that I was enable to intercept them. It was soon over. The mumbers of the Supreme Council seemed very well impressed with

the new. Many of them, in their enthanism, search to move about the room on their purpie rays. The end systes on their surfaces glowed as they curried on excited communication. Then the picture coddledly wainful. The Sphere legan to transmit sense mental impulses. "You have seen how much the information was vectored by the Correct." I was told that the invasion of Artitax will consense as soon as all the Extragalana contrast, and the contrast the contrast of the correct property of the contrast of the con

the leading files. It would be better for you so remain in your which while I go to make arrangements." FOR the first time I got an opportunity so mentally review the situation. Describing had happened so quickly and there had been such a sudden crossling of events that my mind was almost descel. It was antenally impossible for me to contribut may visiting that based for the Extensions. The Milet up over to coil blood and the Extension and The Milet up over to coil blood and the state of the Contribution of the Contribution of the Contribution of the Milet and th

moder of my described by the returns of the Green Clobe, your given in the contract of the contract of the contract Though there is no see in worrying about the heavilable Though there is no see in worrying about the heavilable of the contract of the contract of the contract of the notion made to be seen of the contract of the notion made to be seen of the contract of the first you have seen prescribed problems of our adornal for you have seen prescribed problems of the price. Not for you have seen prescribed problems of the price of the law of the contract of the contract of the contract of the registers, the base of all try account for the contract of the cont

the comprehension of the Eurosian.

"We are spins to beare very soon now, so I will take
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their entire population. They carried no lethal worpers, relying whatly on their power of mental suggestion which I had streetly seen in operation. The following events may seem somewhat confused, I am afraid, but that is became in the antiken rush that succeeded I had no opportunity to get a clear impression

of what was hopering. I had a vague impression of my guide's calling too to the foremost filer, into which I shardered somehow, which hundreds of Green Globes crowded in on either ride. A door changed shut, and we were gues. I had a sensetion of going straight up with 342 an Inconcrivable velocity. I knew we were ascending

one of the shafts which led to the seriace. Then I reorived a mental impulse from my paids, informing me that I would find him in the control room. I located this after considerable difficulty and thus exceed the bustle and turmoil without. Here I saw the Extrotian mentally controlling a small instrument which, he told me, resulated the speed as well as the direction of the sense show I asked him to explain the means of propulsion, but this he refused to do, saying that it was a secret. However, was forced to admire the skill and ease with which he piloted the flier. He wiformed me that its velocity was so great that we would arrive at Astrox in one-shipd the time it had taken me to court that distance. The sine of the vehicle was about four times that of our howest ships, and yet the Green Sphere told me that compared to the other Extrasion fliers it was very small staken! By this time we were through the shaft and just about the surface of the dead star, (I should explain that Extrasc is really a sun and not a dependent places, but through habit I have occasionally referred to it by this latter term ) There was a window in one wall of the control cabin, and through it I could see a steady stream of lights pour through the shaft opening. When I realsint space ships, I knew that Astrax was hopelessly doorned. Then, for a while, I preferred not to think at

all. Later I asked the Sphere whether it had a name. "No." it exclained, "we have no names. That willy custom died out millions of exclest son. Instead we have numbers. My number is 314-66874539. The first met denotes the rank and the second corresponds to the name. The lower a rank number is, the higher is the position indicated. I see that you have this rank system yourself. It is inevitable in a highly organized divilization. By the year, as you have been over this come before one you tell me whether we may expect to encounter any unevenly difficulties on the way? Ah, yes. I see you are thinking of the Drulls whom we may meet. Let me reassure you, when I tell you that they are so low manually that it will only require about two or three degrees of mind concentration to annihilate them as fast as they come. To left the Astrakions it took at least circle dorrors. This is because a more advanced mind is able, so a certain extent.

to withstand the thought waves which induce death by mental succession." This was new to me. "Do you mean," I asked, "that you have gained such perfect control of your minds that you are able to revulate the exact strength of the thought imposses?" could sense the mental amosement of the Extension.

"For the last 4,000,000 cycles we have been nothing but almost solely pure bearns equipped with this ray-like means of recentsion which you have seen. Originally we had certain appendages with which we performed the majority of the necessary tasks. But we found that this distracted us from the none mental labor, which everyone of my race likes to include in as much as possible. As a result of this condition we have built a great variety of machines, which are entirely controlled by the mental power of the operator. It was these machines that constructed the space fliers. By their aid our power is practically unlimited, and some day we intend to conquer as much of the universe as is consucrable. But I that since these machines left us free for purely mental activity, we began to develop our minds to an amazing degree. When we perfected our ability to project mental impulses, all conversations were confined to this method and consequently our speech ormuna attrophied. As a matter of fact, the only renmants of our original bodies which we have retained, bendes our brains, are our eyes And even these have changed. As we learned to depend on them more and more for maintaining contact with the outside world, they gradually grew, and now they inclose the entire surface of this sollere-like body. Thus you may regard the Extresians as being gigastic eyes filled with kexins. No doubt such a form of intelligence seems strange to you and probably regulaive also, but you must remember that every living thing is completely molded by the environment in which it exists. If you were to trace the circumstances and confitions surround-Extrusian life, you would readily perceive the reasons for our evolution in this direction." Then I thought of

"With such an organism you should require no nour-

"Nor do we," replied the Globe, "That is one of the sumerous advantages of being an Extrosian. And what is more, our life soon has been so tremendously increased that 85,000 cycles is not an uncommon age among us That is because there are no parts to wear out. But what does baccen is this: You know that the brain is only catable of absorbing a certain amount of knowledge and ideas. In the case of such a race as your own where the histimes are so short, this fact is of no account, as you probably only use a small fraction of your total mental carecity. But with us it is different. After a very long time the brain becomes saturated and loses the power of recording any new impression. When this occurs the individual is no longer conscious of the present but of the true only. Originally, as such a one was of no une to the community, they used to be painlessly externinated. But in the light of advanced science it became remaible to make certain operations on them which dostroyed all the less important impressions and thus partially reluvenated the brain. Each Extraoian can survive about forty of those treatments which are undergone once every two thousand cycles. After the brain has taken more than forty treatments, it grows stale and becames worn out. Then it is extinguished. I myself am communicatively vorme, for I have no yet only token eight

treatments." "Perhaps you would like one?"

"No. thanks. I don't think I will need it for some time to come." Then for a while we conversed no more, and I again became to think of the terrible fate in store for my planet. It seemed to me that I had been taking the whole thing rather calmly, but, after all, what could I do about it? I would have given my life to warn Astron of the coming danger, but how could I? There was not a movement I could make which the Green Sphere would not instantly anticipate. The only thing I could do would be to wait until Astrax was reached and then, at the moment of landing, attempt to escate. In the meanting I would try to be as friendly to the Extrosian as possible Suddenly I remembered that even now he might be reading my thoughts, and I turned to look at him, but he was

completely absorbed in controlling the flier. Then I fell asleep and lost all track of time.

wander from the original point. You may rendly see "Translyter's Note: A "spot" may be the Retrosies explicated for a year. Proton Lesies impropely was not interested energy to find what it corresponds to in the year incommended to in the year.

WHEN I awake I found the Extrasion still in the same position. He had not moved since I had has sten him, and yet I was told that over one-half of the distance had been covered. I could not help thislitus that it spoke well for the power of mental concentration which this raps powerses. Through the front window I could see faint points of light far in the distance. Instinctively I knew these were Drull space ships. I informed the Extresian of this.

"Yes," be answered, "they are Druff ships. I knew they were there a long time ago. As I explained before, we'll be able to subdue them by thought waves." "That's all right, but they have a heat my which could

destroy this thin instartly. On the way here we were nearly victims of it ourselves." "Don't worry. They'll never get a chance to use it.

The Globe turned to a small, shiny square on one of the walls such as I had seen before and the sad enot on its surface closed more visidly than ever. One by one each of the captains in charge of the space ships immed into view, vanishing almost at once. Yet in that beset moment of their anceprance the Extresian had been able to give each of them an order. Then the senere asked me to look through a rear window. I could see a long line of shiring points of light, each of them representing a space flier. Gradually the line becam to bend at the center, until it took the shape of a crescent, with our fier in advance at the center. From end to end the line could have been no less than 350 lentory in length. The Sphere informed use that the object of these tactics was to prevent any of the Drail ships from escaping for the line was to surround them, forming a circle. Now the ready to attack us. Even at that distance I could see their heat rays flashing, although they could not have us while we were so far away. Each moment now the two fleets were coming closer and closer. Then the Globe went to the front window and the red spot glowed again, Suddenly the foremost of the Drull flees bears to make ble in its path and then dropped out of sight. Sometaneously almost all the other enemy thins followed suit. But even so a considerable number remained to endanger

reach of their rays, they too began to act erracically and planged downwards after the rest of the fleet. The Extresion was clutted over the overwhelpsing soncess of the barrie. "You see," he explained, "the whole thing was absurdly simple. I merely had to project my thought waves into the brains of the Dralls and thus command them to direct the ships' courses downwards before they

died. This carried all of them out of the way, and it isn't Norly that they will come back very soon. I had ordered all the other Extresions in commend of fliers to "Have your thought waves my limiting range?" "Of course the range varies with the mental newer of

the projectors, but the average is about twelve times that of the best rays." I saw a new hope for my planet. "Then I don't think your invading expedition will be very successful, as we have certain weapons which are efficient over distances many times greater than that. For example, we have an atomic disinterrator which would cause the atoms of this filer to collapse insturily and . . .

"Yes," interrupted the Globe impatiently, "I know all about that. We Extrosians shandoned that device thopsands of carles area. As a matter of fact I read in your trind that the Astrokenes love been making use of this ingrament, and as a precaution I have ordered that all the fires he covered with a film of solid bedroom. They won't be able to attack us while we are in the air, and when we land there will not be any danger either. If they should use their rays, then they will wreck Astrox, so a victory would be too dearly honght." This hought home the realization of my planet's impending doors more forcibly then ever. What possible chance could it have assist as invading army of Super-Intelligences

whose giant intellects had foreseen every possible confingerey? Then I determined to do sometimes that strangely enough, had never occurred to me before. I returned to the Extrosion and carnestly pied for my country. Since his position and rank were very high. I knew that if I could persuade him to abandon the savor sion and go back to Extrese, his decision would not be quatradicted. I told him of the beauties of my planet, of its highly organized civilization, of the scientists in the lower levels who consessly toiled for the betterment of Astrox, of its sirways and of its interplantary transports. In short, of practically every development that my planet had produced. All in vain. The Sobere could

"Do you know, I think I shell lost patience with your continual mourning over the approaching and of your race. After all, what purpose is there in life but the advancement of science? Cur't you understand that your houstard civilization is really of a decidedly low level anyway? You talk of the 'beauties of Astrax.' What good do 'beauties' do? Do they assist in the erection of laboratorics or of scientific instruments and machines? No They merely encourage indolence and rague dreaming. You my that your civilization has constantly devoted itself to the service and development of science. May I ask you what outstanding advances you have made in that line? "The trouble is that you punnit queer, sentimental ideas to interfere with your progress. When you should be delighted that your place on Astrox is going to be taken by a superite race of higher achievements, you us with their heat rays. These come toward us at a bemoun the fact. Now is that a true, scientific spirit?" high rate of speed. Just as I thought we were within I saw that it was more than useless to plead with this

strange creature, who recognized not a single idea in life but the advancement of science and the same of adventirre. What could a rational being answer to an argument like that? And yet, after a little reflection, I could understand the russon for these perverted ideas. As a civilization of pure brains, they had practically nothing with which to concern themselves but intellectual labors. As a result every idea relating to personal pleasure or restletic prereciation of the legetiful had died a rectural death. That was my way of accounting for the Globe's

After that I made no sacre allusions to the fate of my planet. At least I had done all I could and no more could be expected of me. I asked the Green Gloke what would harpen to me when everyone else on Astrax was disposed of. I learned that so long as I did not interfere with any of the subsourcest Extrasian recombines nothing

would be done to me. I could not help thinking that that sort of a life would be a lonely one-wandering through the levels of Astrax and reflection on the life and activity which I had loved so well, now gone forever. I knew that I would never feel at home with the Extrosians.

"You will get used to it like everything cloc, as I tally you before," the Gulet mid me. "But you never seem to rectife that get and I'm not going to relief that you have received that get and I'm not going to rell it into you will be interested to limit the two I more than the see interested to limit the two I more than the seem into the fact which the two I more than the seem in the seem of the se

THE filer was traveling so regordly that the visible disk of Astrax begon to calarge approximally each instant until it soon filled five earlier beavens. Already II recognized the characteristic markings of those consirates which focal me.

nents which faced me The Sphere decided that it would be better to try to effect a landing on the dark side of the nigner, an accordmely the entire Extresion flort second around to a large circle until it reached the other hemisphere of Astrax. cert and immolistely great signal flares were lighted all over the surface of the planet. At the same time a great bords of space skins rose from the orrand as if he mosic and becan to ascend above the limits of the atmosphere to a point where they could operate their Wexton ray machines. The Extrusiana, despite their emperior intellects had not anticipated this manager, and so were forced to fice from under the Astrolian ficet, which was cet of the range of their thought rays. The Green cities. The Extrosion filers flow racidly overhead and by projected thought impulses killed off meanly two-thirds was reduced to a metropolis peopled by corpses. Of course the inhabitants of each of the big cities had been sedered by the General Astrakian News Astrony to leave. but their numbers were so great that the process of departure took considerable time, and this afforded the Extrasians an opportunity to catch up with them. Meanwhile the Astrakian fleet had overtoken us and was mining a perfect shower of the atomic rays, even at the risk of endangering their own cities. This menace grew to alarming proportions as more and more Astroleum filers joined their comrades. The Green Globe then deterseized to attack the corese on its own ernend. So, instead of killiar off the citizens below, it turned its attention to the filers above. Soon the whole Extrusian fieth was high in the sir, rapidly approaching the Astroklans. Already they had lost nearly sixty ships theoseth the aterric ray machines while the Astrakian float was as yet intact. But you, when we were at close quarters, the Spheres had a chance to project their mental waves, and in a moment dozens and dozens of hearife space ships fell to sure destruction upon the surface of the planet. many feeters below. At this moden reversal of conditions the Astrakians begon to take alarm and accordingly all of them tried to fee from the range of the Extrosian thought rave. But this they were unable to do. The invading ships were very much faster and the Astrokian vehicles had not a chance of escaping them. Moreover, when they saw so many of their thins suddenly dren

downwards, they lose their courage and even nerfected to

ow the exp machine. Thus all of them fell sixtims as some of the Estensian, and the Astrakian flow are some of the first the state of t

this previlege, but he decided faully to leave me in the

"But I warn you," he added, "not to leave. I am not even going to leave a guard, as you aren't worth the trouble. If you go away it will be your own fault if you get liffed, since more of the other Extragions loow were For a long time I thought over the situation. Then, and dealy. I made an ery mind and I arted at once. Be a strange coincidence the city near which we had landed was the same one in which I had been enpared as Landing Stage Inspector, so I knew it thoroughly. I left the figer and ran as rapidly as I could to the city and there I mixed with the terrified mobs. I believe that of all the thousands there awaiting destruction, I was the only one with a set promose in mind. I went to the nearest heliding and soon found my way to a shaft leading to the hottom levels. Down I went to level \$1. Even here the place was deserted. Knowing their doors was at hand the scientists who worked there preferred to die in the Tiels of day rather than does in the best of the arrend As I went about I had been hastily eathering food, and by the time I reached my destination I was loaded with this necessity. At last I came to a soutil chamber which had formerly been a secret office of the Astracian Space Ship Co. Under a rabinet at one side of the room was a hidden lever and the door opened. I climbed down and selled another lever. There was a tremendous explosion and the entire building above me crashed into rains, thus effectively scaling my retreat, which I had always reads for just such a cutastrophe as this. I followed a small and distly lighted corridor for about fee testors and finally arrived at a tiny soom filled with all sorts of scientific scenarios, chief among which was an excellent sence-phone, operated from a private source of energy. There is little more to say. I will send twenty-five messages exactly like these which I hope will serve as a neach. If it were possible, I would give complete deseriorious of our atomic energy production plants and one warment new marbines, but these were known only to the congruences and the inventors. If there exists a race whose science has enabled them to construct a spacephone like this or some similar instrussent canable of receiving any of these messages, then my work has not been in valu, and surely such a race will do its utmost to defend itself against the Extrosians, who have annonneed their intention of conquering the entire universe

if possible. Farewell and may you be fortified against this menace in time to resist its stracks.

# Flamingo

Ry Clarence Edward Heller (Continued from supe 329)

to enter, who, by the way, was none other than a female robot, kughed heartily as he tossed the rare orchids out

Miss Dolly felt very sorry for the unbaner chan and his wasted gifts of adoration, but the Manager and myself took it as a rare jest

You enjoyed the result?" he next inquired, at which we both nodded our heads in an enthusiastically affirma-

"I am glad . . . for the 'Orohotium' and the 'Harmoreum' are my especial delichts. "The lights, which you perceived in hundreds or thousands tometit, are generated from the power stations lo-

cated in the Buffalo Locks, by the Edison's Corporation. "But, the most marvelons impossion of all is the scenery. It is all relayed by wires from all countries . . . Java, India, Wales, England, Africa, America . . . savwhere of all. Trees, tropical fruits, grasses, folloges, variour tiets of nature, typhones, simoons, morseous, rules

or caltta, or ice-hery accuse from the fromm Antarctic. Croecdiles basking in Floridian everglades. A flevin in San Diego "For a great som of money as rental I order whatever scepery I wish in advance . . . say agents attend to that,

"I thus have no strikes, no delays in shipping scenic effects, no temperamental fits and starts from my artists,

"Again, a fact that you and your fair companion observed, no doubt, toeight. There were all types of female robots dancing, yet, dure I mention in the presence of your friend that there was nothing suggestive or that

would shock the most sensitive person." I assured him off had been consisted of this "You see," he continued, "the Sex idea has been sure, submerped, as it were, under the loftiness of my

themes. I admit there are other great theorem in the world, all producing extravarrana robot shows, but I aim to also the red lie the year hant?

I hartened to express to the Manager my particular protitule for this year work of his arr. "There are no salaries whetherers," explained the Manager, "and my only bussan contacts are with the recenty men and wardrobe personnel.

"That is the medium which has enabled the producer to give his sudjences of this are such mornalism producfigns at such abnormally low figures. "But, I must be leaving . . . said I am avery for my

intrusion."

I swom and shook his band, and he departed It was now oute one o'clock and the immense con-

course was crowded with dancers, who would occupy the I observed that Miss Dolly appeared to be a trife

fangued, so suggesting that we depart, we made our way from the table. Upon receiving her clock and my own but and suo-cost, without leaving tipe of any sort for that was sassi now in a robot world, we hastened to the

movine sidewalk We sat down on the way home, and taking the escalatoo reached the street level catalda of the prostment hatel in which the Van Sanourra and seviel resided

Miss Dolly's face lighted up as she indicated the roof of the Astoria Hotel, one hundred and sixty-five stories above the payement, with a wave of her hand, Peering upward I observed the night Limited Orient Express, leaving for Japon on their twelve-hour schedule, from its runway on the too of this manmeth hostelye.

At last, at the door of her parents' apartment, I took an old man's privilege of kissing the fair Miss Dolly a Good Night, and she asked me if I still had the rose. I nook it from my pocket, and she kissed it, and then T followed sair I did not blame Miss Dally much, for she is sound

and romastic, but a mon of my years? She wished me to see some ocean flats with her the next afternoon near Briefese and as I tendered her wrap to her, which the ever-weighted female robot tools in

her hand, through the slightly opened doorway, I passed in my hat also in my confusion Miss Dally laurhed marrily as she masted my hat our to me and told me I had every young man of her ac-

exploitance consolerely concluded for distinguil buildings I wont to my rooms on air. Taking a glass of synthetic sods and brandy from a wall-faucet, I sat down and conscriptioned the evenior.

What a wonderful show and what a grand wife Miss Dolly would make for some year. And shielder leight of the neutrino immedian of grown flats for the next day and what on associates on casion to propose to Miss Dolly. I began to prepare for

Scratching my bead, the litting notes of "Red Love" housed me; and the lovely Mile. Flamings, who had the face of, er . . . Miss Dolly, in my drouge.

I keped that the operating scene in the amphitheatre would not interfere with my night's recease as I becard from my Davegette couch and extinguished the Mandaher Top Esp

Sequel to THE SKLARK OF SPACE Berins in Annual and continues for three consecutive SKYLARK THREE, By Edward E. Smith, Ph.D. Order your coains now from your newsdealer, or send your subseriation direct to Averior Swares 321 Female Averna New York City

# The Universe Wreckers

A FEW was of science are soon predicting that within a relatively horn period.

A of time space-travel will be taken out of the reads of some passibility and
will become an undersides reality. Mr. Hamilton, in his final chapter of this
work of the state of the stat

# Illustrated by WESSO

Work work MANNE.

When the property of the pro

CHAPTER XI (Continued)

Desperate Chances

N the ante-room comparisent stood the usual files of Nepanian guards, and as we saw them, far beneath us, we heard a sharp encorate order from one of them, saw them standing asside from the extracte to the great circular Countil comparison. Then, as we watched, we saw emerging from that circular comparisons in a moment more, their Neptimians, the

superior Consol of Thirty before which we had been on short a time before. They were conversing now in the season to speech, no longer held within the thirty state of the season of the season to the season the season to the se

we can make our way to the chirk side!"
"You're going to my to strail a cylinder on the dark
side!" I sideol, and he modded.
"You he the darkness there, where the Nepturians are
skeeping, we'll have a chance to get at one. But we

must harry, for there's little time left before the great signal comes for those on dark and surrourd sides to charge places?"

So, sparred on by that necessity, we swang curselves

over the wall's still and then dropped down through the digit for bindred for bound the antiescent conmorth of the still and the still and the still and more than a drop of a tent that distance on earth, so showly did we find from means the both beauting our still and the still and the still and the still and the the floor, routified in a boay there, and then straightened, proportion. The still are the still a still a still a still a great alone. The still are the still a still a

# A Serial in 3 Parts Part III By Edmond Hamilton Author of "Looked Worlds," "The Other Side of the Moon," etc.

compensate, anoving row in greet floating loops could be a first process of the p

globe, but time now was our enemy. Soon the signal

on dark and surreard sides streaming across Trison to

charge their sides. And unless we could steal one of the

cylinders and escape before that signal came, we would inspirable be discovered So, sparing only a siance toward the great silent clobe. Marlin and I moved alleady across the errest Council compartment, toward one of the low doors in it that led separently toward the dark side of Triton, to our right. Causionaly we passed through that door, finding cornelyes in another orderoom comparement, as oncee now as the one through which we had already come. Swiftly we of ours made now, toward the sleer in it that led in the direction of the dark side. But even as we moved toward that door, as we stooped to pass through it, Marlin and I shrank authority back, appalled. For as we beer toward that door, the sound of staccato voices had come to us from just shead, and we had seen in that partment, several armed with ray-tubes, who were conting straight toward that door, straight toward us !

comparement as they come toward us, there we had leaved asule from the door, had reached one of the compacts that corner and eroughing there in the deals, even as the dozen Nectunians came through the door! It was our one chance of escaping them, the chance that they might not nererive us in the consurtment's corner through the radiable deak that princed in it. But I know that no keen were their great bulging multiple eyes that it was against bons that I board. The Nercurians who had notice us as they entered, passing across it toward the great Council compartment, conversion among themselves in their statuting speech-strengs as they did on . Tenachy we corrected there, etilization authority on we saw one of the disk-hodled monsters sublenly turn and plance back across the connectment in our direction. But in the pest moment he had turned back, not seeing us, and then they had cassed through the conmitte door. their strange voices possing from our bearing.

A moment we glanced wildly about through the desky

Marin and I straightened, with long breaths of relief.

"Close, Hunt!" he whitpered. "But on to the dark side—
we've little enough that left!"

"We're almost out of the twilight bend now," I told
him, "and in the dark side we'll be a little safer."

AND now we were moving quietly through the door from which the american of the Necturians had startled us, through the compartment beyond it and on through another and another. These commartments of the twilight hard scorned for the most part curie score, filled neither with manner of working Newtonians like those of the sunward side, nor masses of sleeping Nepturians like those of the dark side. We had found bourger, that the compartments of the twilight board were in fact used only for the housing of the Council of Thirty and of the other activities and departments of the rules of the Mantucinus their only suspense wide from that being to provide casy access from the derk to the surveyed side of Triton, and vice versa. So it was that now as we creet through the twilight dunk of those connectments, we found them almost whelly enter and tenantiess, though once or twice we were forced again to seek hiting in the shadows as we beard the seaccato voices of Neptunians in the distance. Once, tea, we were startled by one of the calinders throbbing by close above us, and since we had had no time to bide from it, thought correlate discovered by it though after team minutes it became obtain that its comments had not seen

But soon the twilight of this narrow hand was despening, and charted sexual, in stanced, we want mobing from the properties of the sexual stanced of the sexual stance of all things about use. We had reached the dark side of the sexual stance of the sexual stance of the sexual stances of the sexual stances of the sexual stances. The the massed milities of the Nephrinian roots. The ferries comparisons which we tourerain that indicates, use. But show, as we smooth effectly on, we cover into the first of the present stances. The sexual stances in the sexual stances of the sexual stances of the sexual stances. The sexual tensor of the sexual stances of the sexual stances of the first of the present stances. The sexual stances in the last sexual stances of the sexual stances of the sexual tensor of the sexual stances. The sexual stances in the sexual tensor of the sexual stances of the sexual

This clean comparingent, through, was not errory like those soon Necture, for in its hundreds of shelf-openlearn his moral princers haden there alent hundreds more hundreds of the disc-bodied Negermans! Their seven short limbs folded up around their disk-bodies, they reposed in those openings with their bulging, glassy eyes as open an ever. It was evident they all were sleening, since the dispess of the day upon Necture had made lide for those eyes urnecessary in the evolution of their strumer race. And eary was that sight to Mariin and myself, as we steroed allently into and across the great sleep-compartment. For it seemed to us that the housdreds of Neptuniana reposing thus in those wall-countries were reparding us fixedly with their great multiple eyes, workships us as use moved across the compariment. None ctirred, though, as we made our way agrees it to the ormalise door, and moved into the next, which we found to be another sken-compartment also, its well-openings,

too, belding hundreds of the sleeping monsters.

Through a deem such aloop-compertness we went, snoving with infuire quiet and care, lest any of those election thousands along up to around in any sound.

Anna almost it seemed to Mariin and me as we crept on that that hope was ended in any case, since so far we had found more of the leading-compartments for which we earched, note of the cylindrical filters in which alone we caule eigen. We had passed through other comgreat glowing globes whose intense heat was not radiated out horizontally at all, but sent up in vertical beatcorrests, which by convection in some way warmed all Triton's atmosphere. Past those and through still more sleep-compartments we went, pausing now and then as from the distance in the dark side there reached us a few staconto voices; still we came not upon any of the

landing-compartments for which we searched Despair was growing at me as we crept on through the aleen-convertments, through the thousands of slumbering Neptunians. For soon would come the signal that and unless we found a landing-compartment, a cylinder that we might steal before then, all was lost. Even with such a cylinder, indeed, little enough hope was ours, since we dared not attempt to get to the twenty controls of the great sun-ray across the swarming sunward side. Our greatest hope would be to escape from Triton in it, if possible through the great roof that surrounded Triton, but even that bone seemed a futile one now, since, as we went on and on through the dense darkness of this sleeping side of Triton, we were moving still through a more of sleen-compartments, procing blindly through the vast checkerboard maze of intersecting, towering walls And as we came into still another of the sten-commertments, with its massed sleeping Neptunians in the wall-

openings around it. I halted beside Marlin, twitched his "Martin!" I whispered. "That signal will be coming soop-this dark side's sleeping millions will be waking around us, and we've seen no sign of extinders set!" "We must go on, Hust?" he whispered sensely. "It's

our only chance now-to set to one of the cylinders before they awaken!" "But if we were to head in a different direction-"

I becan then was abcuntly silent, stiffening suddenly, as Martin chd, beside me. For there across the dark compartment from us it had seemed to us that one of the sleeping Neptunisms in the wall-openings had moved! Fixedly, in that moment, we stared toward it, its own great glassy eyes staring back toward us like those of all the other skeeping monsters.

Was the creature asken or waking? The question burned in our brains at that moment as Martin and I stood there motionless, gazing toward the Neptunisa, It was but the merest moment, thruch, that we raised thus at the thire transfixed, for in the next instant it and the one in the opening beside it, roused by its own movement, had moved again, and then with their low starrate. eries of surprise sounding together as one, the two Neu-

## tunian monsters had leaped down to the compartment's floor from their openings and were confronting us? Through the Roof

VEN as the two creatures leaned down to the floor. and before they could enough out and astonishment into louder crics of alarm, Martin and I had learned arrows the commartment toward them For a full two-score feet in one great leap we shot toward them, a feat only possible with Triton's leaser gravitation, and only possible, too, because we knew in that moment that a single load cry from the two creatures would bring

us. Before either could uster such a cry, we two had shot So astounded were they with our appearance and our supernatural leap across the compartment, that before they could put themselves into a posture of defense, we had struck them, had knocked them to the floor and were grapoling with them. In that first memers of contact I had reached for the mouth-opining of the disk-hadied

monster at whom I had leaped, had gripped that opening in the top of its disk-body to prevent its outery and then had striven to lift the thing sidewise, to harl it against the floor. But great as was my strength against Triton's lesser pravitation, the strength of the Neptunian I held was greater still, and its weight, due to the weight-disks word by it, was enormous. In an instant its seven great limbs were clutching for me, grasping me, and as I strained there against that great monstrons disk-body's my strength spainst its own. For even as I stroggled desperately with it, Martin struggling as wildly with the other beside me, the thing was lifting me with its own ereat limbs from the floor! Upward it drew me with those powerful limbs, its halving plants even staring from its disk-hody's edge

straight into my own, as we grappled descentely in the dark compartment with the sleeping Neptunians all about us! I left provelf being overcome, my strength remy beside the strength of that monster, and as I clutched wildly still at the mouth-opening in the top of the disk-body, I though my cleuched first down into that small wound mouth-opening, half by chance and half by design, closing it thus with my balled fist. Instantly the creature's potten for the moment, its whole hody's mass seeming to house and twitch as my hand thus cut off the passage of air into that mouth-opening, into its body! I was throtthing it. I losew, and hune forcely to my grip upon it. my cleached hand still within its mouth-coesing, while the thing smayed and tore at one with executerressing strength. A moment more and its struggles ceased, it collansed limply to the floor, and I storgered up again to

of the cormartment's shelving and instantly, with a single great leap, I was upon that other monster, had greated upon it the same throatling grip which I had found was so deadly to these creatures. In a flash the Neptunian had released his hold upon Marlin, was whirling me around the compartment, shaking me this way and that, and wildly attempting to tear itself loose from me, but with the last of my strength I hung to it, and in a few moments it, too, had werkened, then had slumped down in a lifeless, protesome mass. And as I rose from it I saw that Marlin had stargered up discreise, was coming toward me. None other of the Neccessians and Jaco aroused by the noise of our mad combat, because in the first excitement of that combat the two Negturious we fought had not thought to cry out, and after I had guined that shroetling hold mon them they could not. So around us the ellent ranks of Nestuniana skeet on unaroused, their open, glassy eyes full upon us even in their sleep, while Marlin and I were stumbling toward the comportment's door.

In a single glonce I mw that the other Neptunian had

gripped Marliu and was crushing him against a corner

"On, Hunt" he whispered hoarsely. "We still have

a chance, if we can find a landing-connectment, can steal one of the extinders before these strening Negotrious wake!" Through the new compostment we went and the next

and the aget, all sleep-concurrences, filled with rows of durchering Neogunaus like those behind us, but in our progress we had come upon no landing-compartment And though we knew that such there were here and there and with the base walls towering all around us, in what direction from us they might be. We could but blunder amilestly on through the mare of adjoining decorate eartments in the blind hope that we must chance upon one of the landing-sections, and as we went on stargercompartment, all filled either with masses of alconing Nontanians or with great heat-radiating mechanisms, we knew that at any mament mucht come the great signal

Never could there have been flight more rightnoon tice than that of Marlin and myself through the dark comparements of Triton's durk side, in blind search for the cylinders which alone held out to us any chance of escape. Through the sken-compartments, with their masses of open-eved and election disk-hodied Necespieces, through the compartments where reason the great glowing globes whose radiated heat alone held back the ings, through compartment after correspond in a flight made more grotesine and inseal to us by the strange method of our progress; by the strange great amouth leans that we made instead of steps, great floating leans of a score of feet in which we rushed through the dark sheeping compactments, recidens now of the few Nestupipers who mucht be waking and moving upon the dark side. Then suddenly as we leaped toward the door of still another sleep-compartment, point an instant to lean flaring home ahead. For the next comportment, we saw, was a rectangular one and greater in size than any we had peoped through as yet, and in it there stood the great pleasing shapes of a score or more of the cylinder diera

With hearts pounding Marlin and I crouched in the how door, evering thereigh the darkness toward those great collectors, that observed a little in the fooble lists that came down upon Tricon's dark side from the store through the great roof overhead. We saw that the low doors in the sales of those extinters, near the bases, were open, and from them there came to us the throbbing of part of the courtiers refinders used to help in tensormet. ing the Nesturday bardes from duck side to account side those throbbing mechanisms' operation, that the been of awakening for those hordes was at hard and that these were waiting for that awakening. For there stood also, between in and the nearest of the cylinders, three tubeanned Negrunians who were converting in level, wan-

ping speeds as they waited! POR the atoment, at sight of those cylinders, Martin and I came near to throwing ourselves toward them promption of the three but that we leave mould be said cide, so despite our torrupper source of and an anisad there in the doorway, razing desperately toward the cylinders. And in a moment, as we sought in win fre some way to get to the negrest of those ordinders, then came a final starcato order from one of the three New turious and at that order the other two turned and passed from us. It was our chance, the chance for which we had hardly dared to hope even, and no sooner had the two Neptinian disappeared through the opposite door. the other standing with his eyes following them for the moment, than Marlin and I had crept out a little bit inte the landing-compertment and then with a great simple tencors lean had shot through the oir seared that we

mort. For own as we knocked it skiewise with the force of our leap Martin had presond the greature's limbs and with fierre, desperate strength I had with my cleuched fist closed its month-ovening in that method whose deadliness had been proved to me in our other battle. The thing threshed wildly, then it, too, had gone limp, and had collapsed. And in the next instant Martin and I were rising from it, were leaping across the compartment toward the open low door of the parent steat calinder, from whose great elearning surjets bulk before us cause the throbbing of its powerful penerators. And then, a closen feet from it, we stopped dead, and from Marlin came a hourse cre-

For at that moment there had swept over us, through

on coast us, from the direction of Teston's assessed and across its surface, a hand of intensely brilliant white lists. white light that blazed brilliant for the moment all around on territor the chearefees night of Triton's deals side around us for the moment into a white and blinding day, and then sweeping swiftly on, around Triton's surface millions of electing Neptunians about us to awake and change places with the swarming millions upon the sunword side! And even as that decaying signal came, as Marlin and I stood stupefied there for the moment before from all its mare of aleep-compartments, a rising habel of staccato voices, the voices of its awakering Neuturian millions! Then, before ever we could recover from the stupelschon that in that instant held us rooted to the spot, there had poured into the great landing-compartmeet from the consentments on all sides of it amount of Insterent Nectuaisms, swarms of dislocatied oversters, who is that moment saw us, attered as one a sharp erreat ery of discovery, and in the rest moment were rushing from all sides boward us!

"The extinder? It was Martin's wild one that around me from the sturefaction of amagement that held me. Semirld before us, a dozen feet away, was the open door of the nearest cylinder, and in the next solit-second Marlin and L as one, had leaged toward it, had shot through that door, toward us. The next instant I had reached francically for the door, but with one swift motion shift or clanaring share and then as the Necturian masses ontoide burket themup through the openings toward the cylinder's uppermost section. In one leap I was at the central controlstooded feebled function by with the over control stude for an aguaiting moment, and then, inst as we

beard the Necturious below flinging themselves against

the class, the erest throbbine exhibitor shot mound!

ascruent, and as we observed momentarily down we could see the Necturings in the landing-compartment beneath rushing toward the other cylinders there! And glanging far across the surface of Triton, we could see all its mighty compartment-city, dark and surround sides alike, swarming now with Neptunion houses as the end and her ringer of their strange day and night periods was sigmiled. Over the great compartment-city, over all the countless millions of Neptunians that swarmed through it, there was streading a crackling mar of excited tumply. as our escape was discovered. And from far away on rither side and from beneath us, scores of great cylinders

"Up-us" Martin was shouting now beside me. "They'll have us in another moment?" I present registly posits the study before me, and as the cylinder shot up and sidewise with terrific speed on an sir about us. "The roof-openings?" I cried. "We'll But as the cylinder flashed obliquely upward, Marlin

whirled toward ma!

make for the nearest one?"

and I croaching in the two opposite seats at the controlstandard, I become aware of the awarms of racing celinders behind closing in upon us. And over the dark and sumward surfaces of Triton that great mounting roar of sound was spreading, as the Neptunian horder now our wild attempt at escape. Up-up-and now we were racing close beneath the great most transpagent from below. with the pursuing evilpiers drawing ever neger, their Neptunian occupants more skilled than I in their operation. And now, too, from those storistics, necessing swarms were directed toward us slender penell-like rays of pale light, visible only near their source, concentrated

force-rays, that would cleave through our cylinder as On and upward-and now as we shot on, with the swarming cylinders hurtling both after us in wild our, suit, with the throb of our renerators and the roar of air about us thursdering in our ears, with the wild tersult of the massed Nentumons on Triton's surface estimated file up to us from beneath, Marlin and I were expine with tense ever ahead and unward. The great opening, the great sliding section of the mod down strongs which we had conc-that was our one chance to excuse from Triton. I knew that unless we could win through that openand on we went-our eyes still mon the rost mod overbend in search of that opening in it, when suddenly Mar-In cried heavely in my eur, and posted shead. And there from about were rushing toward us other scores of critinders, other swarms of racing cylinders answering the surreading plants, while still rathers were shooting up from below toward us! From behind, from ahead. from beneath, the cylinders' swarms were conversion roof----

"The opening-section?" I cried suddenly. "But it's For there above, indeed, was that recut circle in the vast transcurent roof that we knew could be slid aside tle care-room staucended beside it. My one hope had been that in our stolen cylinder we might deceive those guards of the great orifice into opening it for us to pass.

But that hore was gone. Belief and below and before us were the pursuing swarms of cylinders and the Nepturnians in the garn-toom above knew that something was wrong, and had not opened the great circle for us. There were other similar circles, similar opening-sections, in Triton's rood, but it was too late now to seek them becouse from all about us the swarming, racing evinders were reshing upon us. In another monete their rays would shatter us! I heard Marlin, beside me, utter a low exclanation of utter hoodessness as those evindres rushed unon us, held our own cylinder for the moment motionless there in mid-pir beneath the areat mod's overine-section, and then suddenly reached toward the control-study, even as Marlin's hourse cry was sounding

"The end, Hunt!" he was erving. "The evlinders are almost upon us-and the opening-section is elosed? "The end manho, but not this new?" I should be said at the same moment sending the cylinder flashing straight unward with all its speed. "Hold to your chair, Marlin - cur'er some to much through that exceins rection of the roof!

Even as I cried out thus, our eviluder was rising upward toward the roof with all the power of its throbbing seasonators, burtline upward at speed purhickable toward the great circle of the opening-section! I was aware in that moment of the emacline agreems of calinders about and beneath us loosing tround us a storm of emissing focus-rays that we drove clear of in that instant. I was aware of the Nepturiers in the cape-room beside the great opening-section rushing wildly about no we shot unward like the cylindrical projectile of some sourt cannon! The next instant I caught the gleam of the transparent roof, of the opening-section just above us, Marlin and I instinctively crouched lower in our seats, and a moment later there was a blinding, sturning shock that secreted to split the universe with its detonation. We were dragged up from our seats with awful force. And then as we straightened up and looked out, we saw that

the criticaler had smarthed through the creat opening wo tion and was throbbine above Triton's murbry roof The cylinder's edling, above us, was crumoled and here hadly, but in that moneys it seemed a miracle that we had lived through that serrible collision. It was only our awisd second that had saved us, driving us through the opening-section's thick metal even as a cyclene will drive fragile straws and twigs unbroken through a board. Now as we looked downward we saw that the swomise outine-section and that that circle of the opening-section was slowly sliding aside, bent and cromoled as it was, to allow those cylinders to emerge through Triton's roof after us! And up they came, a full hundred of them, racing up-after us at utmost speed, up from the great metal roof of Triton, dark and opaque to our eyes from above, and up through its atmosphere close on our track?

THROUGH the rushing roar of air about us, the throbbing of our guaranters, I was aware of Martin shouting something beside me. I was engine ahead for the moment, as that wild flight and purguit passed on through Triton's atmosphere. Giant Nepeute's cloudy green sphere bulked girentic in the heavent before we and far beyond it was the little fire-disk of the sun. Then I turned back to see the hundred retrainer colinders, each time ever closer behind us. As I started at the ciche I became sware of Marlin shooting baside me, and at the

that the throbling of our persenters was halten, besitating, failing! Our great erash our through the roof had broken some part of their mechanism and now they were failing rapidly, and the spend of our cylinder was slow-

And behind us the scores of oursaling cylinders were clowr-close! Already toward us again from them were leading the slender pale force-rays, unknown us at that distance but sweeping close about us. With an other tenworss of body and spirit. Marlin and I wanthed them drawing closer, as our cylinder shot on through Tritun's atmosphere. Suddenly another storm of mys had shoe and sweet toward us from behind, and one of those wildwhirling rays, in a single instant, dove through the extinboard, slicing away completely the already-enumbed mod above us and the upper half-dozen feet of the walls? Instandy a flood of ire-cold sir replact in more as and seemed in that moment to freeze us through. At the same moment the throbbing generators ceased considerely ward, drifting helphasks there in the outer maches of Triton's atmosphere, while from behind. Her leaving

creatures of prey, the scores of cylinders rushed upon us? Neither Marlin nor I voiced a gry in that moment. We could only stare as if we were automatous, toward the corrolling cylinders, the encoming doors. We had ren our course at last. It seemed in that moment that all our bitter battle for freedom, our toilsome esence from our red our flight through Trion's alerning side our mealing of the cylinder and wild crash mouned through the great roof's opening-section-that all this futile fight of ours was remaching itself with lightning swiftness before my eyes. The swarming cylinders were almost on us, holding their rays now as they saw us belokes until they were closer, their great mass whicking straight toward me, expectant in that instant of the end, I saw that onrushing sease of cylinders suddenly shattered as though by giractic bloss from above. I saw the scores of culina ders driven this way and that in a simple instant with colossal force, even as they sucked to annihilate us! And

I looked denotly up, was looking up-"The space-flers" Marin's insure ore was sometime there beside me, "It's the space-filer-and Whitely and The space-flier! There high above us and above the

pursaing cylinders it hung, a glussing faceted ball, at right of which I could only gaze stepelied. I saw in that motocut that down from its lowest ray-opening there was radiating toward the cylinders that had been hertline in a rous toward us, a pale, almost invisible great forceray and that it was that ray's giant pressure that had shattered the mass of our pursuers, and in an instant had driven their massed cylinders to all sides! Then, as they broke thus in wild confusion before that swift great force-ray from above, the space-flier was finding down toward our roofless, drifting cylinder, was hovering just beside us, touching that cylinder, with the round outer door in its facet within our reach! In an instant Marlin and I had dambered to the drifting extinder's edge, had whirled open that outer door of the space-fier. When we threw ourselves into the little vertibule-chamher or air-lock, abut the outer door, and turned toward

Whitely!-was pulling us inside!

"Whitele-Randalis" we were holding in our enritemeer, "we thought you dead-saw fragments of the space-flier and thought it destroyed---! "No time now to tell you, Marlin-Hunt-" Whitely was harriedly saying. "Those cylinders are forming again. Ther're coming up toward us! Head out from

But even as he had sooken. Raudall, in the controlchair, had flashed his hands over the six control-switches. other three chairs, we felt ourselves present down with terrific force against them as the space-flier shot out from Trinos with colossal speed! But at the same moment the cofinders that had formed amin into their closeground mass, had leasted forward with us and the next mousest saw space-dier and cylinders althe whirling out start! I elanced back, saw that the evlipters were close behind our hartling space-filer, flashing after it somewhat

toward Triton and flimmen it outward. And as I stanced back, I saw Triton's dall glessong sphere, with the pale eiges force-ray that stabbed from its side toward the son, growing each instant amaller! But dead about of us, though somewhat beneath our level, there formed the colossal green sphere of Neptune, growing in size as we rushed on at immense speed from its more! On we went, and as Randall's hands flashed over the ly forth with him, we were aware that from the roass of onracing cylinders behind stender force-rass were again questing toward us, though the range was too great for them to loose them accorately at this terrific speed. At

any moment, though, one of those concentrated, sendi-Hur rays might cleave through our space-flier in a lucky hit, and mises we escared from these relentless promers, the spece-filer and ourselves were certain of destruction. This I saw, and saw too that Neptune's colorsal cloudy sphere for close before us, so awful was the speed of our flight and pursuit, and as it loomed gigantic before us, filling the hossens, it was apparent that we would not close above its surface. Sodden's I turned to Randall, shouted in his ear above the thandering throbbeing drose of our generators. "Necture !" I cried. "There's a chance to smash these

persoing cylinders there!" "But how-?" he began. Shotting is his car, I ex-

plained to him the desperate insurration that had come to me. I saw his eyes and those of Marlin and Whitely widen as they heard, and then he nedded grindy, And now about us was sounding again the roar of air

as we abot through Neptune's atmosphere, shot above the surface of the buge planet with the cylinders rushing still at equal speed behind us, their deadly rays stabhing this way and that in slicing sweeps toward us Through the plandy mists of Neuture's upper atmosphore we firshed, straight onward, with the dark metal surface of the giant world's vast roof clear now to our twee far honouth. And as we shot over it I saw Randall's urin tighten on the coerrol-switches, saw him glance back toward the pursoing cylinders, behind and a little buseath as, and they abrough he had flung open the switch of the great force-ray that was driving us on, our star-ray! Instantly the speed of the space-filer slowed, and in a the inner one, that inner one was opened and Whitelysplit-second the onrushing cylinders, racing on undowfor in that mounts, were burdler nest beneath us. And as they did so, another switch had elicited under Randall's hands and straight down upon those cylinders from the stace-flier's bettom was driving down mother wishes In the sext instant we had a glimpse of those massed relinders that had been rushing thus beneath to driven down by the power of our erest force-ray with incor-

ceivable speed and force, driven down in a whieling, conbelow! And as our great ray, traveling across their mass, drave them thus downward with colusted power, ing downward against that roof, shattering issue engaged. wrecked masses of metal upon the mighty structure, anmilitated with all made them on that roof as our great ray drove them down around it! Half at least of ther mass of evlipters perished thus in the first crash downward and before the rest could gather again to whiri up to the attack, our great my was playing upon them also, crashing them down upon the great roof of death, until in only a moment more but a half-dozen of the evhoders remained intact! And these, as their fellows crashed to

death beneath us, were gathering and spooling away from this death that smore from above, were some back toward the dull-gleaming disk of Triton Marlin and Whitely and Randall and I were of creing out in that moment as the surviving eviluders flashed away in flight, and then Marlin and I had turned toward our two friends, "Whitely-Randall-, I" Marlin was saving. "You escaped those Nectunians that first discovered us, then? We saw the fragments of wreckage year pursuers brought back, and Hunt and I never

dreamed you might still live! "It was a trick that enabled us to escape," Whitely explained. "When they discovered us there beneath Neptune's roof-chased us up through that roof and un velocity through the gulf of space toward the far little into the great cloud-belts, I saw that we could not long disk of fire that was the sen, far shead. For it was escape those pursuing cylinders. So, while Randtill drove the flier through the mists and while they searched in those mists for us, I bettered and broke with himse of a large tool some of the spare plates and instruments we carried. Then, as they came closer to us, their force-rays slicing through the mists in search of us. I cost those fragments loose from the flier, and when they strude against the nursulae evinders in the mists, when those cylinders saw the wrecked fragments, they had no doubt but that their force-rays had struck us semewhere in the cloud-layer and annihilated us. We lay in the chrosols ing mists until we saw them returning toward Neptune's surface. We realized then that you two had been contured by whatever manner of creatures these Neptunians were, and saw the cylinders, with you in one of them, going down beneath Triton's roof. For days, therefore, Randoll and I voited around Tring's perfore business against hope to get down lastife in some way and find

you, and had almost given up hope, when we saw the cylinder you had soolen racing up from Triton, and wore able to save it and you from the pursuing evlinders. "But you, Marlin-Hunt-" Whitely continued, "You have learned how and why these Neptunians are sending forth the great ray that is turning the sun faster? We saw that ray and another great ray on ormosite sides of Triton-Is it not possible that we slose might be

able to halt that ray?" Marlin solomely shock his bead, "No chance, Whitely, for us," he said. "Perhaps no chance even for all the forces of earth?" And quickly he told, while Whitely and Raudall listened enthralied, of the captivity of us two in Triton's stronge and awarning world; of the gigantic tale of Neptune's post and the surpose of its possiles, as it had been told us by the great globe of the Council of Thirty; of our desperate escape and flight across the dark side of Triton and our wild crashing poward through the roof and out from Trium. "We along," Marlin con cluded, "can never halt either of those great rays, for each has countless cylinders and Nentunians within to guard it, and each has twenty control-boxes of which one alone can keep it operating. No, owe one chance is to get back to earth, to gather there the press flort of sourcefliers which the World-President and the World Congress planned to build in our absence, and to come ore in that great fleet with the most powerful wrances mailthic and cadeavor to crush these strange Neotuniana, su halt that errest ray of doors that is turning the our ever faster! For unless we can do that, unless we can below carth's first of space-filers out here and bult the great sun-ray, that ray will in sixty days more have finished its work, will have solit the sun and loosed doors mon all its remets except Neptune! And so it is back to certify that we must race now at our utmost speed?"

Marlin's solcun voice craord, and there was silence for a moment in the space-dier, we four swine toward each other without speaking. By then the flier, with the tremendous imposus of its flight still drawing it forward, had swept on and out over areat Neptune now, out of the giant world's clearly atmosphere and into empty space beyond it. And, with Noptune's givet globe filling the firmament behind us. Randall sassped on again our rear force-ray, sent that my radiating back toward the vast disk of Nextens itself. And then again we were formed deep in our chairs as the flier's tremendous speed accelerated once more, the filer hurtling with greater and greater

toward it, toward our earth, that we were going from Noptune, from the solar system's edge, to carry back word to earth of the nature of the down that hung above it and to gather earth's forces to forestall that doom!

#### The Gathering of Earth's Porces

CTARING shead into space from the control-chair of our racing ther, I board Whitely's voice from beside me. "Seventeen days," he was saying "And in two more days we ought to reach earth." I notifed abstractedly, gazing shoot. "Two days at the most." I said. "We're inside Juniter's orbit now, and once through the sateroidal belt, there'll be nothing to

delay us." For as Whitely and I gazed outward, Marlin and Randall sleening now in two of the smoot-flier's bunks we could see that we were approaching, indeed, that belt of whirling assemids that marked the division between the four inner and the four areat outer signets of the solar system. To the left, despring behind us, gleaned the gigantic cloud-belted sphere of Jupiter with its stately train of attendant moons, as great a mystery to us as when we first had passed it. A side force-ray was holding the flier out still from the mighty planet's attraction, while about and to the right from us now element crimson Mars. Yet it was not these that held the own of

Whitely and myself, nor even the increasing flery circle

light that was exponding slowly in size and brilliance as we shot on toward it, the little spot of bluish light that was our plauset, earth.

For days we had gazed soward that little light-spot as our space-fire went on and on through the solar system's vast reaches toward it. For seventeen days, now, even

our spoo-fier went on and on through the state systems' nate to caches to result. For revenient days, now, even as Whitely had sals, we had been reading insomed from the state of the state of the state of the state of the to our own would. The span-fier regard nor force vapashing both capinot giant Neptune, had haried the filer in through the universe with an anoceleration of velocity that was so great as to prove almost con undelaig. Nor none then core that terrife possessor our undelaig. Nor none then core that the trich greates with socretive files for insteas and unconcisioners. And with socretive files for means and unconcisioners, and

of that acceleration on us, despite our shed-shorting represents, had a saftened our bookies as so everescene us with successive the of motion and traccardiometes. And it is nighty rings, facilitá of those great rings after our focuser misadventure with them, I had swalesed from yelex-period to find Rushall and Marlie, in the control-drain, quite unconscient from the filler's terrific acceleration, the file tender peeding ourseal without tary acceleration, the file file files of peeding ourseal without tary

sections, the fifte itself specing owned without any policia, band on its next that, given the fifte to the unions excelentation of the first to the unions excelentation possible, its specil security mention the excelentation possible, its specil security mentions the excellent possible in specil security mention of the excellent possible in special security of the excellent possible in the special possible in the excellent possible in the special possible in the excellent possible

the raw, thus shadowing all the male system with the Martin Individual concentration as the contraction of the contraction of the contraction of the contraction to the contraction of force-ray from Prime kept upon as able to contracting postures. And within both is shoulded from man, as we consequently of the contraction of the contraction of the postures of the contraction of the contracti

space-flier in through the solar system toward earth with a speed multiplicable, almost, using an acceleration that was all but death for us. For the one hope of presynting that colosad sun-estaclyam, as Marlin had said and as we all knew, was to reach earth soon and then at once great space-flier fleet, which, if the World-President and the World Congress had not failed us, would be waiting on earth for us. With that fleet we must sally back across the solar system ence more to its outer edge, to prost Nenture, and must fall man Triban and the plant Scene. ray that was shooting from Tribus to the era, with all our power. If we could vanquish the Necturines leng enough to destroy the glant sun-ray's mechanism, to halt that ray, we would have halted the acreleration of the sun's spin, would have saved the sun and its planets from the catadyomic doom that now thecatened them. But if that case nothing could halt the doors that they were loosing from Triton upon the sun and the solar system. And as Whitely and I gazed out through the flashing filer's windows, we knew that scant enough was the time left for us in which to do these things. Even if we were exic on earth in the next two days, as we hoped, there would remain but little more than form days before the coming of the dread extaclesm that threatened, and it would require half that time for the space-fliers of curth to make their way back out across the solar system to Neotune. So that now there lay over my mind that descening shadow of impending colessal diseaser that had howeved over all our minds during the strange days of our racing inward through the solar system, making me gaze somberly enough toward the bleish light-snot in the decliness of source for about that was our exal new.

dees and great weapons were too strong for us, then we

could but perish there in struggling with them, since in

To the left, though, Jupiner's great globe had dropped for behind now, and so I saw that I cat out our side-ray, and harmed soward Whitely.

"We've at the edge of the asteroidal belt now," I told him, "but I'm one going to slow our speed, We'll just flash on through it and take our chance."

He modelful reserver. "I'll wake Markin and Recodall

now to help me keep watch," he said A moment later, having dose so, Martin and Randall freed themselves of the strans of the busics and climbed across the filer to take their places beside Whitely in wasching for the great menacing asteroids. And as we passed on through the belt of those whirling perils, Marlin and Whitely and Randall watched for hour on hour there beside me, though so vast was the maximum speed at which our filer was roing now, more than civit million miles an hour, that before they could more than get a finshing glimpse of a nearby awteroid we would how record it. We were relyest almost wholly on blind change to take us through the asteroidal belt at that to earth from the solar system's calee, that we needered to trust thus to chance, rather than to slow our speed or for the time, favored us, for some hours later we had won through the perils of the asteroidal belt without more thus a few split-second glimpues of the great whirting coheres of neril. And then, as we shot across the orbit of More with the planet's dull red shield still farther to the right, I began to slow our terrific speed, for by

the time the earth was expanding empily feder as a fed as one to the same as an family before the in the first was not for the same and the first was the first was the first was a federal for the first was first was for the firs

NCE more we felt terrific unward and forward pressure in our chairs as the flier's speed steadily showed, dranged swiftly from eight million miles on hour to six and then to five and then to three. And as we shot in thus toward earth, the millions of miles dropping shower behind as our filer's erest faceted ball effekted through scare at slower and slower speed. I knew the same question was in the minds of gov three friends as in my own. It was reflected in the temple environ eyes of Martin and the imperturbable eyes of Whitely and the unwortedly grave eyes of Randall as the three stared shood with me. Would the more-flow that the World-President and the World Congress had promised to build be ready? If not, we knew we certainly could not venture out to Neptune and put an end to the great doem-ray that the Nerdanians were stubbled toward the

sen. So that it was in a prowing auscense of spirit that

we watched earth's sphere, with its crescent of bluish-

white light at one side, expanding before us At ever slower speed we were rushing in toward it. and at less recovery at less a few hypothesis threeward miles an bour by this time, were driving in out of the void and past earth's shining moon, gleaning in space to our right, its great ranges and strange craters clear to our eyes from its airless surface. But now all our eyes were on earth ahead, since now through the drifting cloudmasses that floated in its atmosphere we could make out the great bluish globe's surface features, could see that western Europe and North Africa lay in the sunlight in that crescent of light at earth's side, but that the North and South Americas lay in the shade of earth's outer side, in the darkness of night. It was toward the dark half-seen outline of North America that I was heading the filer, for by this time, traveling still more slowly, our velocity now being less than a thousand miles an hour. we were entering earth's atmosphere, the rarefied air of its order reaches roaring shout the flier as it shot

Marlin was saving. "There's not a minute to lose." I nodded silently, at the same time ampoint out the front, ray of the filer that was alconing our mond on was shot toward earth's surface, and as its gravitation gripped the filer we were turning until instead of rushing onward we were falling to its surface from high above, as it turned in space before us, falling down toward the surface of the North American continent, whose outline was visible from our great height through the shifting cloudscreen. I felt my heart beating rapidly as we shot thus downward, forget almost the mighty import of the mission on which we were returning in the mere fact of our return; for we were first of all men to venture thus late the outer void and to return from that word to earth! And so we shot downward I saw the some thought mir-

through it

noted in the faces of the others, staring down with me. Down-down-with an obline ray I was making the source-filer fall shinkingly, more and more slowly, toward the northeastern coast of the continent beneath, whose broad, brown surface stretched out greater and greater beneath us. Moments more and as the roor of air about us intensified, mineline with the throbbine of our generators, we shot down from the sun's light into the durkness of this dark side of earth, this night of earth's one side. But now its great surface was changing from convex to concave beneath us, and now as we shot lower still Randall pointed downward and northward with a low cry toward a spark of bright red light, the beam of the

rest air-beacon of the trans-Atlantic air-liners, at New York, Slower-slower-and in moments more the vast most of its towering cylindrical buildings ablace with outlining lights, was comme into view, with midmost among them the greatest of all, the hope mass of the As our accordier dropped slowly toward that mighty structure beneath my controlling hands, as it dropped

ing to and fro over the great city, so familiar was the scene beneath to us four comic voyagers that almost did our reest insures our mighty fight out through the arm's planets through the countless learnes of space to great Nection, and our grotestne and dream-like adventures upon Neptune and its moon, seem to us indeed no more than dreams. But as we shot lower we were startled from this strange state of mind by one of the position-lights along its hull, driving up through the darkness toward our groothly falling space-flier. We saw amazedy toward the elegeing, faceted metal hall of our flier as they circled us, and then from their craft had bernt not a series of brillions periodograd sional Tobas And as these blazed out there came a magnest later an maswering blace of lights from each of the swarming eraft below, that shot up now in hundreds toward our

Down through the darkness we dropped still, those

sworms of sircraft almost instline us as they seetled thickly in territic excitement about us. As we shot downward over New York's surface we saw that across all the vast city, and far across the great sir-docks to the south even, sleval-lights were blasing out, a wild panorama of bursting lights stretching out in all directions! From heneath, too, there came up to us now a terrife mor of mineled voices, the vast crowds in the streets of the huge city sending their cheering cries up "Straight to New York-to the World Congress," to its in a great thursder-roll of sound as we fell toward them. And as I held the sease-flier to its smooth drap downward amid the swarming aircraft. I saw that Marlin and Randall, and even Whitely, were gazing across those

falling flies, econoling crasily about it!

yest, shouting through and across the swaros of stadledarting aircraft that engircled us, with somber, thought-Now we were falling a few bundred feet above the roof of the World Government building, on which a littic knot of figures awaited us, and as I gazed from it across the other roofs of the great city I uttered a low exchanation. "On the roofs—von set?" I asked "Those things of metal-those space-fliers-I" But they too were gazing toward the roofs, toward

the immunerable crystal-like metal forms that we could half-recognize on those roofs in the darkness. But a elimose only we had of them before the source-flier was sinking downward to the great roof itself, and as Marlin saw the knot of figures on that roof he half-turned. "The

World-President," he said, quietly, "waiting for us on the roof." That roof's flat expanse was just beneath us, covered itself with other great crystal-like gleaning fliers, but

space-flier's framework. There was no framework there now, but smoothly I brought the flier down upon that snare, down to the roof, poised it a moment a foot show it, and then let it sink to the roof's surface and opened a half-dozen of the switches before me, the throbbing of

the generators that had been enduring for so long censitse and giving way to an unaccustomed silence that was strange to our cars. Then Marlin had turned, was ovening the igner door, and in another moment the enter one had swang open also, a flood of cool, clean air rushing in upon us. Marlin leading, we stepped out, stead unsteadily for a moment on the great roof's surface beneath the brilliance of the lights that flared above it. From beneath and above came still through the night

the uncession year of the erest crowds in the hume city's streets sed the hum of its swarming, seething sirersft, and then we saw that the little group of men on the roof beside us were carring toward us, the World-President at their head. His strong, keen eyes were steady upon us as he came forward, his hands outstretched, and then he had gripped our own hands, was holding these for a mercett in silence. In that moment we were all four swaying a little as we stood there, eaging about us at the far-flung lights of the great city around us, at the men before us, at the strangely-dulled stars overhead, as though never had we seen them before. When the World-President spoke, his harran-sounding voice seemed

"Martin-Randaff-Whitely-Hust-" he said. "You have come back then from your mission?" "We've come back-from Neptune," Martin said

"The World Congress is already guthered—is woiting for you," said the other, as simply, and then with him and the officials about him we were walking toward the stair-opening in the great roof, were walking through ranks of the great looming faceted things of metal that I naw now clearly were realized such of our own value

hedren-like space-dier! Down through that opening we word, down stairs after stairs until we were enserging through a high door on the raised plutform at the end of the great room to which the World Congress awaited us. Brilliant white light flooded that room and in it, in silent row upon row, were seated the twelve hundred members of the eman Congress. As we four entered, with the World-President and his officials, there was turned instantly toward my every eye, and a tence bush of atter-allegee actual in which our own steps seemed loud to our enes. There were no shouts or cheering cries from the Congress' members. in that moment, for all knew that what they were to bear now from us was the word of hope or hopelessment for earth, the report of our great mission upon which rested earth's single charge for life. And as I seemed seems the errat, silent Congress in that morney, there flushed more the screen of my mind, strangely enough, a picture of that other silent, solemn council before which Martin and I had stood but a few days before, that Cornell of Thirty of the strange Neptunians whose great synchronizing riobs-mechanism had sociom to on. Then on we stood there, the World-President was stepping forward to ad-

"There is no need for me to tell you who are the four mea standing here before yet," he said. "Marlin-Whitely-Randell Hout-these four who went out to Necessia on the earth's behalf, and whom earth has been ly awaited now for weeks. I do not know, any more than you, what they found there, what chance for earth they found or failed to find. And it is that that we, the secrescutztives of the world's peoples, now wait to hear from Marlin, the leader of this great expedition." Unter silence held all present.

A ND as the World-President stepped back, Martin, unsteady still from our materials and the earth's pravitation, and with face drawn, but eyes steady and bright, was steeping forward. Facing the great rank on rank of members of the World Congress he stood, while we others aligned into the seats believed him, focing them for a moment in tense sileace as he summoned his energies to sneak. In that moment, as my eyes roved across the great hall, I made out the faces of many there known to me, the face, just beceath our platform, was that of my chief at the Intelligence Bureau, Markham, the faces of many others, strange and yet familiar, all turned now toward Marlin. And then, in a voice low at first but gaining in power as he went on, Martin was speaking to them, his words sounding out through the great room in

a broked, unusual silence, He began by reviewing in a few sentences the colessal peril that had threatened and was threatering us, the increased spin of the sun beneath Neptune's mighty ray that soon arest result in its division and the solar system's doors. Then, with a reference to that other gathering of the World Congress at which our venture out to Neptons had been decided arous be came to the start of that venture. While they listened in otter tenseness he told of our start, of our going out from earth first of all mea into the outer void, out past the navateries of Mars with greater and greater speed. Our onward flight through the terrible dargers of the great asteroidal belt and our narnow excupes in it, our outward rush past mighty Juriter

-these he described in his steady voice, and we felt the

tenseness that held all in the great room in dead allence

He told them of what down had nearly been ours at

Source, of our fall toward its great rines of death and our surrow escape from them. Then, with a little passe, he was going on, was telling of our owned flashing flight beyond Seturn out through the west certer reaches of the solar system, out past the orbit of Uranus toward Neptune itself. In unnest suspense they listened as he told of our arrival at last at Senture, of our amarement at finding that plant world shickled with an enclosing roof of metal, and of our greater arrangement at finding that world, the colosul cire that covered it, utterly dead and deserted. Low exclarmtions of supprise leake from his listeners then as he narrated how he and I had been surprised in the dead city of Negcone by the coming of the Necturious in their cylinders, their attack upon and purgrit upward of Whitely and Randall in the space-filer, their capture of correlars and their taking an from Newture our to the more world of Triter. And a low wave of succentraliable excitement swept across the great room as Mariin told those in it of the roofed and warmed world of Trison and the countless millions of Neptunions on it, and above all of the close force-ray that was stabbing from Tribur's

susward side toward the san and loosing doors upon us! And that excitement intensified when he told of what else up had found at Triton, of the other clear force, ray stabbing out from its other side toward a distant stay of Societarius, of our ennivity there and our learning of the Nectonian teneral, our being brought before the prest Council of shirty of the Neptunion races. I saw the humbands before as listening with shoted breath as he told them that gigantic epic of the solar system's past that had been told us by the great globe-mechanism of the Council, that story of the Nexturians' rost history and of the great doors of increasing cold that had driven

them from Nepture to Triton and that now had exused

them to seek to split the sun itself to thwart that doors. another great force-eav years before, to brace Triton against the back-pressure of the sun-ray and to keep at from being hurled out into the great void, how they had finally sent out the great force-ray toward the sun also. turning the sun ever faster toward the doom of all the own race. These thuses he told them through the bushed silence that again had replaced their stir and morrour of excitement

But excitement held them again when he told how he and I, desperate at the doors we saw hanging thus over had dared to cross its surface and had stolen a cylinder. crathing up through the great roof and out from Triton in that colinder with their correct close behind on how we had been saved from that recruit by Whitely and Randall in the space-flier, who, although we had thought them dead, had managed to check their own attackers by a ruse and had howeved near Triton in hones of saving us; how in the stace-flier we had fled back from Triton and they were over Neptune; these things, his voice deep now, he told to the hundreds of his listeners. And then, awaying a little from shoer otter wearings of body and soirit. Marlin told them how we, knowing that never slone could we halt or even reach that plant ray driving from Triton toward the sun, had harded back for earth at the atmost speed of which we were capable, had flashed back like some areas messeneer-meteor through

word of what we had found, to gather the forces of earth and hend back to Nenture with them for a lost callunt attempt to halt that mighty ray of doorn! When Morlin's wrice had seased, when he had strongd unsteadily back from the platform's edge, his words seemed reverberating still through the husbed silence that prevailed among the twelve hundred massed members of

the World Congress. Then again the World-President, his own face as set and strange now as those of the massed members before him, was stepping forward to

three companions " he said, quietly, "and you, and I, and the possible of earth listening now, know what situation faces us, what last necessity, even as was foreseen, has prises before us. That elast force-ray of which Marlin told you, that colossal ray which these Neutunians are stabbing toward the sun's edge from their for moonworld of Triton, is turning the sun ever faster, as all of you know, is decreasing its rotatory period by four hours each passing day. Within hardly more than forty days fatal period of one hour, will have increased its soin to that critical fatal speed, at which the sun must inevitably divide into a double son, a double star, engulfing our planet, and almost all others, in fiery death in that counic cataciyen. This is known to you and you know, too, that it is only by holting that giant force-way from Teiton that we can save our sun, our world, from that tro-

"This much we have known, indeed, and now with what knowledge these four men have brought back from their unparalleled venture out through the gulf of score to the solar system's edge, to Neptune itself, you know also what lies before us. We have, indeed, built during the

absence of Marlin and his three friends that error first of snace-fliers, which we had decided to build. Using the plans of their original space-flor and applying all our effects toward achieving a countity production of spacefliers on those plans, we have been able, as you know, to construct in their absence no less than five thousand space-filers exactly like their own, space-filers that rest now upon the roofs of New York's great buildings around Us. consulete more with trained crews and ready to wart! The gathering of earth's forces less thus already taken

"And mon this great fleet of space-fliers rests now the fate of the solar system! For that floor must en our through the solar system now to Neptune and halt the giant ray radiation from Triton's surround side toward the sun, if the solar system is to live. What perile, whose opposition that fleet will meet, Markin has made clear to you. These Neptunions, most ancient and mighty of the solar system's peoples, are of coloural nowers, each powers that they are screpting not at solitting the sem ders that can whirl through space as swiftly and as well as our own space-fliers. They have as weapons their concentrated force-rays, which we must provide for the fliers of our own flort before it leaves. They have an ancient science and swight that can produce we know not what weapons against us, and they know that our four first venturers escaped back to earth, and will be exporting now an attack from us, will resist that attack with all their powers, undoubtedly, since they are fighting for the existence of their races, their world, even as we the solar system to earth to earry to the peoples of earth are fighting for ours! "Thus this ereat fleet of five thousand space-fliers of

curs roes out to battle, to battle between the races of Neptune and Earth that most decide the fate of the solar system for all time. There can be but one fit to lead this fleet out to meh hattle, and that is Murlin himself. who was the first to discover this peril that hazers over us, who was one of the first to suggest a means of strugpline against that peril, and who has led this first during venture out through a thousand perils to Neptune, and back again to earth with the knowledge without which we could not act. So that it is be, with these three commonions of his Whitely and Hust lend Randell, who dared "You have heard the report of Dr. Marlin and his all with him and who have done for earth what he has done, as his three lientenants, who must command this great exception of ours which we are sending out to earth]

"For it is this great fleet of space-fliers, with Marlin at its head, which alone can halt that doorn now! If that fleet can win safely out through the perils of the interplanetary void to Necture, can win to Triton's sencan destroy the controls and generators of their great sun-ray, can halt that ray, the sun's sein will coase to accelerate and our planet and the other planets will have been saved. But if our fleet cannot do this, if the Neptunians prevent it from reaching the great sun-ray's source, and from halting that ray, then the sun will spin on ever faster and within two-score more days will split at last and enrulf in the diversing fires of its two new suns, all the planets save Neptune. For it is this great scace-flect of ours, heading out now toward the last great batcle of Earth's and Nontune's races, which alone now can prevent the accelerating speed of the sun and the consequent wrecking of our universe!"

"MARS shead and to the left—once more!"
As I uttered the words Martin and Randall
and Whitely, beside me, were garing to the left,
with me. "Strenne", and Randall, "it all seems, almost.

as when we first went out past Mars." Strangely similar, indeed, did it seem to all of us, the nanorama that now again stretched all about us, visible through the racing space-flier's windows, as we sat in the four control-chairs before them. For shead and away to the left ricamed again the dull-red disk of Mars, farther now from us than on our first trip out but seeming almost the same. Ahead too, and close to the right, shane mighty Juniter, and beyond it on the left the vellow spot of Saturn once more, with far beyond it and straight tune. Reblod, too, the bloish light-snot of earth and the lessened fire-disk of the sun were as before, and as before the blazing stars that jeweled all the deep-black see innumerable tiny elemine points moving forward at the same speed as ourselves through the void, keeping pace with us in regular formation, a great V-formation of which our flier was the point and that moved steadily on through space. For those tiny points, extending back

filter of that great flort of five thousand quest-filters which car own, the fullyly, was louding out through the will represent to Neptune!

The second of the second of

with the energies of a world at his bliding, bull straining covery nove to complete the last perspectations of the great armeds of spice-thers which he, with us there as his liveture of the control of the control digit to Neytone. The most necessary preparation was the equipping of the five through space-thers with the canonimation from any weapons used by the Neptonians in their spaceyinders, those conventional crys which, instead of pullsiving the control of the control of the control of the con-

power. Fortunately, the production of these concentration tays required only the addition of special sensitie rayopolings belieb the regular ray-opolings in the sides of the spece-flers, but even so it senset like appealed so the world's workers so install in each of the space-flers those smaller opolings in the short time available. Each of the five thoround space-flers half a crew of cight, their operators having been trained during our idcipation.

eight, their operators having been trained drinn; our sistone as fast as the first themselves had been hold. We four in our own assect-first, the flagship of the great fleet, for a fine radial retree-mether some, four mechanioperators who worked in shifts and tunfed causelensly the operation of the fifer's various mechanism, the guarantees, and the other mechanical equipment, then the control of the control of the control of the rest to devote all term strengths in the communit of the rest fleet itself, though our of us retained the controls of the filer itself. Amother preparation that had been made during our absonce had been to equip each fleet with space walkers for its crew, and to entire seath with selfcient radiophane apparatus. This, while the Heavilde circumstangular apparatus. This, while the Heavilde earth to appear or free signet to certify, would allow free communication from space-fleet to space-fleet while in space level, and thus would allow Martla and us to con-

trol with spoken orders all the great fleet we led. This the last preparations had been completed and three days after our arrival at earth the great fleet of space-fliers had taken its departure, the five thousand facrited polyhedron-like filers rising as one from the flat roofs of New York's countless gigantic buildings. Oure more we had started at night, and it seemed that all of the neonless of earth had assembled in and ground New York that night to speed us forewell. The yest crowds that had worded our single senso-fier start out on its first trip weeks before, were as nothing to those vaster crowds that had watched the error fleet leave since all on-earth knew now what word we had brought back from Nessune and knew that in two score more days, unless this fleet was successful in its tremendous task, unless it could win through the Necessian opposition and balt the guest sur-ray, that all on earth would perish in flaming

Thus surely there could have been no tenser manuant in earth's history than that, when, with the World-President and the massed members of the World Congress watching again around us, our flambio had risen from the roof of the great World Government building into the night, firshing up and outward once more toward Sarittarius, toward pracen Nepture. And behind us almost instantly there had firehod up in regular timing and formation our five thousand following filers, racing out and after us with colousal speed like ourselves and fiving in that hollow triangle or V-focusation behind us. That formation had been adorsted so that the rays of the fliers of the fleet, driven back toward earth to push them on would not strike against other fiters behind them, as would have been the case had our fleet moved out in a compact mass. And now for forts-cight bours out five thousand space-fliers had been burtling outward, with our own flambin still at the roex of their formation.

And as we four sat now again in the four controlchairs, two of our mechanic-operators watching over the experators behind us and the other two asleen in their bunks, we had a somewhat different array of controls before an Refore movel were the controls of the flies itself, suchement, with the six switches that directed its proposition force-rays from the six openings. Marian though, to my right, had before him now as well as his array of astronomical instruments, the black moutholess and speaker of the radicthone, as well as a compact array of match atota he which he could made to and hear from the various smadron-leaders in the event fleet behind us For convenience in giving orders, the five thousand flient of the flort had been divided into fifty squadrons of a hundred spec-fliers each, and it was to the designated leader of each soundron that Martin gave his orders.

dred filers of his squadron.

Before Eumfall, too, to my left, were new controls, the control of the concentrated force-rays which were to be our fleet's weapons even as such rays were the Nepturnian's also, and with which our fleethis had of course been

equipped. Those controls were two thick metal levers of no error size, with band-eries at their end, one of which controlled by its position the side of the filer from which the concentrated cleaving ray was shot forth, the other controlling the slant or exact direction at which that ray was emitted. With Randall handling these, our weapons, Whitely had before him all the space-fizer's remaining controls-those of the renerators, air rentenishers, the various recording disks that were vital to its operation,

and other essential things. So that as our throlibing filer drawn on now at the creat flort's head, with Marlin and Randall and Whitely and asyncif gazing to the left toward the nearing crimson sheeld of Mars, we had ench before as some vital part of our great fleet's or our flee's control. Gazing toward Mars' red disk, Marlin broke the silence. "We'll need no side-rays this time to hold us out

"No, it's far enough from as now, and the speed of our filers will take them safely past-is taking them past

now. But it's the asteroids about that I've been think-

Martin somberly shook his head. "There's no help for it, Hent," he said. "We'll have to lead the fleet straight through the asteroidal belt and trust to chance that as few of our filers as possible will be struck." The following hours, therefore, were perhans the most tense and terrible that ever we had experienced. For as we shot on past Mars and through the great belt of whiel-

space-fiers of our floet to maneuver to avoid those asterolds. We must hold straight on in our rugular formation, we knew, lest all our fliers crash one into the other. so in that formation we went steadily on theough that great zone of death. And hardly had we entered it, Marlin and Randall and Whitely guring forth as intensely as myself, then an expanding dark gipbe loomed suddenly before us, sweeping past us with terrifying closeness, and then as it shot test there came swidenly in the blackness of space behind us a soundless fligh of

fiery light, that flared for a moment and faded. The asteroid, we know, had struck a fter close behind so! From shead and from either side still, as we seed on. other asteroids were rushing, following their complicated orbits as our great first's ocen triangle of scare-flient moved through them, and now again and again still behind us came other flery flashes in quick succession, flashes of flame which each marked the instant degrees. tion of a space-filer and all its occupants! Yet there came no word, no protest, from any of the sonre-diere behind us, all were going steadily forward at multireed steed and in unaftered formation through the steat belt of whirling death. And though, within a few hours more than a score of our souce-filers had hern anothing lated in white-hot and soundless flashes of fire as they were struck by the burting asteroids, the rest had escaped

and were cert of its whirling death Thus again Jupiter loomed ahead and to our right, though closer now and greater in apparent size, and again we four were storing toward it in almost as great a wonder as formerly, as its mighty cloud-weapped disk and attendant four hig moons formed closer. By this time, Marlin had transmitted to all the fiers behind up a brief order, and already from each of them and from planet to hold us out from its terrific attraction. The

V-formation in which our five thousand space-fliers flow was so slightly filted sidewise as to allow the use of side. rays by all out fliers, and a side-ray of immerse power it required indeed to hold each of us out from the mighty mosurch of the solar system's planets as we sped past its have and enigmatic solvere.

BUT sell on and on through the void our mighty armada of space-fiers was racing, on toward the green spark of Neptune that slowly would brighter far ahead of us. That little green spot of light held our eyes, even to the exclusion of Suturn's vellow disk, exceeding again to the left before us as we shot toward it also, for all our minds were centered upon Neptune and what mighty took it was that awaited us at that erent world and its moon, what nighty struggle would be ours. So that it was not wriff Saturn's disk had expended almost to monosite before us, surrounded by the royal riors and by its whirling moons, that we gave that planet any atten-

tion. By this time, for more than seven days our large flect had been speeding our through the boundless vold, out through the solar system, and so it was as a certain hindmark to us that Saturn appeared as we neared it, the last planet between us and our roal of Neutrone. With our your flost clost behind, as we drew shrout of the huge planet's mighty sphere and colooud rings, it was insensly enough that we four, gathered again in the control-chains of our filer, and gazed toward in

"The most dangerous planet in the solar system-Sature," said Martin, as we looked toward the begg world from which our side-rays now were holding us. "It was cleatly almost for us before when we ventured "Well, we're safe cusurh from it this time."

Whitely engage and "for since then it's record further to the left-is farther away from us with no danger to us now of chance meteors from its rines." "Yes, we're safe enough from it now," Mariin admit-

ted, "set at the same rise----" Before Marlin could finish the words they were interrunted by a thing that chills my blood to remainber even now. One moment he was spenking beside us, our spacefiler fielding steadily on at its tremendous wood at the bead of its great triangle-fleet, past buge Saturn to the

left. The next moment there was a terrific whiching around us of our space-flier's walls, it soon for an instart with tremendous speed in space, and at the same moment then was being driven with coloural speed in a direction at right scarles to that in which we had been moving, was being shot through the vold toward the even as in that awful moment it drow with sickening sneed, with an acceleration terrible, toward Seturn, all its forward progress suddenly halted, reeling blindly and at unthinkable velocity toward the huge planet, I looked through the windows, and saw whirling about us, the knowledge that we had won through the asteroidal lash great, firegular mass with us, and hurtime through the world at the same tremendous speed toward great Securi "Saturn !" cried Randall hoursely as we whirled in that

nutd moment. "The controls, Hust !--we're being shot in "The controls don't answer?" I shouted, my hands

fractically flashing over them, "Something's driving us into Saturn-our rays can't hold us out---"The Neptunious! There behind us-those gress cylthat was parking our flest with colonal power in toward lise death in great statum's mass of rings and moscul. The Negominton had come out with those great ray-petr-cuttons, those questive cylinders, and with a portion of the colonial co

"An ambuch!" I cried. "An ambush in space—the Neptunians are pushing us in to Satura—our flost con't live for minutes then!"

"Typ to letty son the one of lessing out of their garly but, hand." Method social to me, and for a moment is sorbed fremisely at the control before me, but hand to the social to the social their social to the social their social to the social their soc

The thought maddened use and with a system decree

see inspiration I ceased to direct our firm's rays about

against Saturn in vain attenuet to balt our rection flash forward, but instead suddenly shot a ray back against the mans of Neptunian cylinders no longer visible in space far behind. As that powerful propelling ray struck their cylinders' mass, our reeling filer leaged forward with even greater spend toward Schern, and as it shot forward thus faster than even the huge ray from behind plone could reach it, it was slightly freed from that yast for's pressers, and I could edge it proport a little from that great rso's path! Up-up-while Marlin and Whitels and Randall watched with white faces beside me, while our space-filers and all the fleet's around and behind us carse on at terrible velocity toward mighty Sature that now filled the firmament before us, Up-up-and as I saw that we were winning gradually up from the great ray's path, I shouted to hiarlin, heard him with his radiophone appearant quickly order all the fleet's filera to follow my example in an effort to win up from the

randoptions appearable quickly order all the their's steers to follow my canaple his neight to wis up from the great roy's purb instead, the our own, could hope to get clear any's pub, though, the our own, could hope to get clear in this way, but ha wer sweep on, gradually one own their many, that has the sweep on, gradually one own their many, the country of the

"Back to the Neptunian cylinders!" Marlin should into the moutheless before him. "Unless we can destroy the greater cylinders whose ray is pushing the rest of our fleet into Sature, we're lose!"

And last now our filer and the five business others have were clear of the ray libe is, were rushing, back seasy from Saham, while the remaining thousands of sufficient form of the result of the remaining thousands of sufficient to the result of the remaining thousands of sufficient vast ray's pressure, were being driven on by it with terrific speed and power toward assistabilities regarder. Scatteril We must destroy the greater cylindres that were sentling from their ray, we know, before the mass of our fleet

our own flagshly at Both bead, were that showed as light through the bladk glower of spare, has knowed the two through the start glower of spare, has knowed the two through the start glower of the start glower of perfect Upward that behaviourly elibratic, and it is smoother nonement it seemed that great moss of cyflore-clients council before and benoush as in spare, the core or more may our fleet to doors. Before very the Napuralius as the cyflories could see us we had curved inch high above them, and then, as Merlin gave a single order factor of the start great great great great great factor of the start great great great great great factor of the start great great great great great factor of the start great great great great great factor of the start great great great great great factor of the start great great great great great factor of the great great great great great great factor of the great great

crashed into Saturn, and so our five hundred space-fliers.

Neptunian mass of motionless cylinders! Down like light we flashed upon them through the black gloom of space, and a wild exhibitation thrilled me through in that moment, as we flew downward. The immense blackness of empty space around us, the far fiers disk of the sun and the bright sparks of Jupiter and Neptune burning inward and outward from us, the vast ringed sphere of Saturn behind us-these seemed to spin stoute around our filer as with its fellows it dove down through the shoer devicess of the waid toward the masuspection Negetanian cylinders below. Martin was grinping the control-board's edge, staring downward with the radiophone mouthpiece close before him, Whitely at the other side garing down with his calm eves ablaze for ouce, while Ranfell grasped tightly, with his face set and stone-like, the two levers of our concentrated forceray weapon, and while with my own hands I held the controls of the filer's propulsion-rays, and sent it assocraing down one of the upper void now upon the Nepturians, even so the burdreds of our fiers around to sweened Then, as those cylinders knowed greater close beneath us Randall had swung shorply the levers in his hands and as he did so there had emerged from our space-filer, and from all those about us, ray seven roy of concentrated terrible force, stender and pencil-like rays of pale force, that crashed down with awful cleaving power through

### the massed cylinders beneath! I SAW in that whirling instant score upon score of the

I. clinkine below down shough I's those twelfs of the growth of the growth of the control of the

sylinders to destroy them also! But now, as we shot toward them, the Neptusians had ralled from the first supplies of our crushing attack down upon them, and before we could again swoop down upon them, their unbanned cylinder-fiera, still more than two thussand in remiter, had apprated themselves from the centrand wredage of those we had destroyed and wredage of those we had destroyed and wree driving boldly up toward me, to meet my. In an-

other instant they would have overwhelmed us, would have wiped us from the void with their great mass crashing over our own, their concentrated rays directed soward us, but before they could come closer Martin had eiven an order and from our own racing fiers there had shot out toward the onracing Nepturian cylinder-fliers propulsion-rows that in an instant had pushed us back from their curushing fleet, back through a great sulf of space in an instant! Before they could comprehend the manerror, another order had sounded, and we were again kaping forward, this time on a lower level, lengther toward the half-score greater cylinders that still remained motionless where first they had been, their combined erest ray still pushing our fleet on to Saturn! The cylinderfliers above, their occupants seeing our object, forted down like falling meteors to prevent us, but were an in-

stant too fate. Before they could do so, our concentrated may had cloven through the half-score greater exfenders and had annihilated them, their combined great ray crasing instantly! "The greater cylinders are all destroyed?" Whitely was saving. "We've seved our feet from death against Sature, or least!" "Back toward Saturn-toward the first?" Marlin

abouted. "We're outmumbered five to one by these Nentunian estinders!" For even as he cried out, the two thousand or more Neptutian cylinder-fliers, too late to save their greater cylinders, but made more fierce by the sight of their deconcentrated weapon-rays toward us! Against those outnumbering cylinders our own few hundred there had no as Marlin should his order, our space-fliers were roller on toward Saturn, the Neptunions leveling out instant-On we shot, their questing weapon-rays taking toll now of our rearmost fliers, and though Seturn was again filling the firmment before us with his mishes closely-swilow disk, his colonial whirling rings and circling mase

of moons, there was no sign of our fleet's main body ahead. Had we destroyed the greater cylinders too late? Had their combined great my pushed our fleet in to clearly against Saturn before we could save it? It seemed so in that terms moment and then close about there komed in black relief against Saturn's mighty beavenfilling disk, a great swarm of black dots that were whirl-

The fleet!" As I cried the words, Martin was giving swift orders

through the moutipiece before him, and then, even as our own few hundred filers suddenly slowed their speed and halted, the event swarm of dots thead had rushed me beside and around us, had taken form around us as the thousands of space-fliers of our event fleet, falling instantly into their regular formation and confronting thus the Neptunian cylinders that had been so bothy pursuing us! Those Neptunians were too late to halt their cylinderfliers as we faced them thus so suddenly in force, our five thousand filers opposed to theirs, hardly half our member, but they swerved as they saw us, swerved upward and attempted to race above us, raking us with their weepon-rays of concentrated force! Before they could do so, however, Martin 18d intered another order and our fleet had shot up to meet them, so that in the next moment, earth and Neptunian craft had runled together in their two respective fleets, these beside mighty Saturn!, ing past Than's whirling sphere!

As the two erest fleets neared each other there crossed and flashed from one to the other insurveyable slender rays of concentrated force, and space-flier and cylinderther were being clove through and annihilated by those slicing may as they proved one another! Almost it seemed that we must crash straight into the opportun-Neutunian cylinders, the whole formulated for the moment ahead of us being full of their correcting mass. I saw openings in those executing cylinders from which gleamed light, looked inside and there as one sees this as monipulating the controls as their great mass of extinders shot toward our greater mass of space-fliers. CvInders and space-fliers were being annihilated in that mament by scores by the slender rays that drove across the closing you between the fleets, and then just as we seemed on the point of graphing dead into their accoming raling ders they had shot their peopulation-rays sidewise, had swerved aside and were rushing with our own great fleet. which had instantly swerved with them, through the

Side by side for the moment the Nentunian and Earth fleets firw, countiess weapon-mys stabling across the exp between them as at disrying speed they shot through the void and I knot our smoot-filer at our fleet's head, as Marlin gave his orders to the fliers behind us, Whitely swiftly mening and closing the controls of our generators sending our own stender and deadly rays shooting toward the opposite Neptunian cylinders like bolts of straight and half-seen lightning! For but instants it could have been that the two great fleets, our own of space-fliers and the smaller Neptunian one, whirled through the roid, but cterrities it seemed to me, so tense and timeless was that whirl of awful action. Soon I became aware of a mighter vellow disk that filled the firmament from top to bottom before us, toward which our racing, struggling fleets were flashing, and then I saw Whitely bending across me and shouting to Marlin through the wild whirl of this terrific battle:

"We're heading with the Neptunian fleet in to Saturn !" he was shouring "What this battle will mean in those rings and moons----"We'll keep straight with thous!" Marlin cried, "They are trying to escape from us in Saturn's rings and moons.

and get back to Neptuse to rejoin the main Neptusian So that now as fleet and fleet reshed forward I held our own filer at our own fleet's head, racing forward with

the vast whirling system of Saturn's rings and moons stretching damerously before us. Full before us was looming greater each instant the spinning dark globe of Titze. Sajurn's largest moon, and now as our two fleets renhed side hy side toward it at terrific speed, stabbing still at each other from space-filer to cylinder with the concentrated weapon-rays, it seemed that inevitably in the next respect we must creat seriest the bir moon! Seeing this, though, Martin shouted a swift order into the monthpiece before him, and instantly in answer to it our event fleet's troop bore sirlewise assists the recite mass of the Necessian cylinders! For an instant it seemed that the two fleets were merging into each other, spacefiler erashing into evlinder and slender two coming thick, and then the smaller Neytunian floot had given way beneath the pressure of ours, had vecred sidewise so that in the following moment the two fleets were rush-

And now we were inside Titan's orbit, and as we whicled farther in inst across the eath of another and smaller whirling moon. I saw that Saturn's colossal rings lay edge-on close before our racing masses of craft, gigantic suitaing rines of mighty metronopasses, countless great meteor-swarms whirener there about the vast yellow planet whose sphere now was stupendous in the beavens before us. In another few morecus Neuturiari cylinders and space-diers of Earth would have rushed alike into those thundering swarms of meteors, in which no craft could live for a moment. Already chance meteors were whirling through scace about us as we also on. cylinder or space-flier here and there in the two racing, grappling fleets vanishing in white-hot flashes of head and fire as a meteor struck them. But other and more cylinders and space-filers were vanishing in wrackness beneath the cleaving rays from either fleet, and buth were racing on so intent over one terrific struggle as to notice hardly at all the yest whiching rives before me! I heard Whitely utter a boome cry to Marlin as we flashed forward, heard Markin swiftly utter an order in the mouthpiece before him, and then our fleet, and the Neptunian cylinders at almost the same instant, had shot

diagonally upward and instead of enabling into the great

swarming, boiling ruck of the eight lattle, amid the grappling bordes of space-filers and cylinders that filled the air before us, their cleaving concentrated easy slicing this way and that in swift circles of death about no! I heard Whitely laughing a little from excitement beside me as the hattle reached this terrific pitch, saw Euschill sending our own weapon rays this way and that with lightning-swiftness, Marlin gazing out tensely into that hall of battle that filled space about us. Struggling there above Saturn's colossal rings, ever and again Nextunion cylinder or space-flier of Earth shot too low and was caught by the whirling motor swarms of those giant rings, annihilated instantly by them! Hundreds of cylinders and store-fliers had gone to death already, but so far the battle had been almost even do-pite our greater force, and seeing this Martin cried quickly into the order-

INSTANTIAY on whiting specifiers that back sufdesty from its will me the open states, formed in source its or long doubt column of therein, formed instantly its or long doubt column of the states of the filler at the heat, and those before the suppression (which is could retern their own spread-out and disregarized Meximian could retern their own spread-out and disregarized mass or compared to the special states of the states of the and cylinders perchang in scores in that raising crash and cylinders perchang in scores in that raising crash and cylinders perchang in scores in the raising crash and cylinders perchang in some in the state of the subtraction of the states of the suppression of the states in the state of the suppression of the suppression of the subtraction of the states of the suppression of the states of the suppression of the suppression of the suppression of the subtraction of the states of the suppression of the suppression of the subtraction of the suppression of the suppression of the suppression of the subtraction of the suppression of the suppression of the suppression of the subtraction of the suppression of the subtraction of the suppression of upon dem there above Shitmit's rings and seading acidcylinders into weekel fragments by the hundreds with our whiching rays. I Fritzich later own rays come takes to be better. And other we could sense their intention to be better. And other we could sense their intention their remaining cylinders, depleted by source each more most now and numbering no more than fillen intander, their most of the sense of the sense of the sense of the stage, had, formed here a well removale there, and then with all the power of their propolate stays were specifing using, away from Starm, our through the woll of the sense of

"They're fleeing!" I cried, as our own space-flier whirled around in that moment. "We've besten these, at least—they're fleeing back to Neptune!" "Regular formation—all squadrous!" Marlin was

"Regular formation—all squadrous!" Markin was showing into the montholoro before him, "Full speed out from Saturn—after the Negounians!" And as our space-fires, still over four thousand in number despite the losses of that wild combat, massed swifthy toesther in their V-formation and then were

harting out from Saturn through the grid after the file ing cylinder, I van cryling to him over the studies wasing throb of our generators; "There's far norn Negation between the control of the control of the here—the rest must be wirling in Neganas inside!" He nodded, prin-faced. "The main Negaras field!" He nodded, prin-faced. "The main Negaras field probably wishing there for us—and must commander us by almost two to core. But if we can oversite fress fit, and leave, from replacing their small fact!"

Now Soturn and its rings and recors was derindling swiftly behind us as our great fleet shot forward notice from it, out toward Neutune's steady, pale green little light-spot, and after the hundreds of cylinders fleeing before us toward it. With an acceleration that never before had we dered to risk did we lesp forward through the yord now, and so awful was the pressure of that needers. tion spon us that even with our shock-absorbing arearates we were trushed almost into unconsciousages by it. Steadily, though, with the last of my consciousness and strength, I held the space-fiter's speed and course onward, while close behind us there shot after us with the some terrific acceleration, the fliers of our own fleet. We knew, though, that the Nectunians were fleeing toward their great world at a speed and acceleration as great as ours, for we were not gaining upon them. Their massed hundreds of cylinders, indeed, were not visible to us in the great word ahead except by means of our triescope, but with it we could keep them in view and could theck their progress and ours out through the great guilf toward the solar system's edge. Ont-out-for hour upon hour we throbbed through

Other-ont--firs hour upon hour we thresheed through the voids her three foreign Negrouine (risleers, not need upon the void stark three foreign Negrouine cylinders, not need to be the void that have been a start of the stark three thr

great main body of the Nepturian cylinders that we must

overcome, I knew, before ever we could have to set to Triton and halt there the giant force-ray that was turnwell we knew, too, that in the interval the Nepturises had had time to brild many more cylinders, to make their great float even prester, and that whatever mights wenpons they had devised in that time we now must face.

So that as our great fleet of space-fliers, holding to its regular formation, flashed on and on and on through the great gulf of scace, on out through the outer wast reaches of the solar system toward its outermost planet, our every effort was best upon overtaking the flering Nepermans before us and annihilating them before they could reisin the main body. At the same colossel speed as curretree they were flering from before us, on toward Negtune's tiny green disk far ahead, and though we held steady in our pursuit after them, we could not lessen the gap betweet us. Hour passed into hour and day into choose, less day thus as we throbbed on in that tramondous purstat, hours and days that we could not measure, all things seeming timeless now as our great fleet flashed on in this terrific pursuit. At maximum speed, at millions

of miles an bour, the Neptmians and ourselves were hurtling on, yet they kept out of reach ahead of us, as Neptune grew larger shead. And now that mighty pursuit of ours had become so strange and surgal and dreamlike that it was as men in a dream that we watched and slept and watched in our space-filers as earth's brave fact shot on through the last reaches of the solar existen toward its eden. Timeless indeed seemed the day on day, the hour on

hour, of that during pursuit of our floring enemies dut

that that pursent had begun to draw to an end, since Neptune's disk was steadily enlarging before us and we had berup slowly to draw closer to the fleeing extinders.) Closer and closer our first, our own foremost space-filer. was coming to those flering fifteen hundred eviladers, and the interval of hours and days of surgeit out from the wild comfor at Secure seemed as though it had not existed, so tense once more we become as we drew nearer gale green disk and the bright little scor of Triton about and behind it within hours of m, we had come so close to the firring cylinders that their most hustling on in a conc.Her formation, was clearly visible to our unnided eyes in the void shead. And by this time, in every spacefier of our ourushing fleet, its occupants were warting impediently for the moment when we would be near enough to losse our concentrated weapon-cars on the

floring craft ahead. "We'll overtake these before they reach Noveme!" Marlin declared, gazing intently ahead toward the eleaning points that were the flering cylinders far ahead. "Well anough for us that we can do so, too?" Whitely

commented. "For if they rejoined their main body, the odds against as might be overnowering !" And now as pursuers and pursued rushed nearer and pearer toward mighty Neptune's great pule-green sphere, they were also nearing each other, our coleaning four thorsand space-fliers drawing closer and closer toward those fleeing fifteen hundred cylinders, though they were a great distance from us. Beside me Randall's hands were reating on the weapon-gay controls, and as we came closer still to the fleeing Newtoniana T you Martin land. ine toward the mouthnises, nemaring to eige his under

to the erest fleet behind us. Clowe-clowe-we could clearly make out now the massed ficeing cylinders far in the unid sheaf-pirents almost within accurate ray, range, a swarm of black dots arguest Nenture's clouds green disk shead. And as we came thus close Marlin Sect into a broad firing-formation and send their rays stabbing ahead. But that order was never uttered, for at that moment Whitely intered a short ery and not muthat the tucing mass of cylinders ahead was suddenly slowing.

With unprecedented quickness its speed was decreasing before us and in moments more we would have erashed into those slowing cylinders had not Marlin's firm of our fleet likewise. Fearful of some trick, slowing thus, we gazed intently about in that moment and then all of us had evied out together as we say heaved that swarm of black dots that were the slowing fifteen bundred Neotunian cylinders before us, other black deta that showed against great Neptune's disk also, which keemed ereat now in the braxes ahead! Other block dots, an immense twarm of them, that we know were other colinders, an immense fleet of them, ruthing out from Naptune toward the lifteen hundred before as and toward ourselves? And then as in moments more the Effects hundred extinders before us slowed and stopped behind them, from great Nepture, those other cylinders, forming with them, there in space, a colossel semi-circular that faced our own four thousand or more space-filers there in the weid! It was the giant assembled Neptunim fleet, gathered here outside their world to face our own first, in that great strapple in which Earth and Nuntring towns to come now at last to death-orics for the life or death of the solar system!

### CHAPTER XV

#### "You of Neptune or We of Earth!" \*OLUMN formation-all squartrons full speed

It was Marlin's voice that shouted that swift under in the next instant, and then, even as the gigarite semi-circle of the Nertunian fleet was learning through the word toward us, our four thousand and odd spaceffers, outnumbered almost by two to one by the cylinders massed ahead, had shifted like larbraing from their creat V-focustion to one of a long double column care more and no sconer had its squadrous taken that new formation then the column stanted startely to allow the free use of their propulsion-rays. They were fisshing forward now like an enormous spear cast toward the curving front of the giant Nepturian Sect! For it was Morlin's intention to paret that outnershering mass of calindees by splitting it with a column as we had done over Saturn to our enemies, and then engaging separately the parts of the disorganized mass. So that now, even as the great half-circle of the Neptunian cylinders whirled through the void to everythelm us, we led formed that long, double column and were dushing straight at them! Holding the controls of our space-flier steady in that

moment. I was aware for an instant of a sense of the unter stranssores of all the wild scene about me-of our

space-flier's Interior with Martin and Randall and Whitely

created in their chain builds ms, of the great column of polyhedroughles, glenning, factored, proceedings that came forward through the black gulf of ann-soom space behilds us, of the occurring pine fine of the Neptonian cylinders flushing toward us in turn, and of the limitate great field of this of mighty Neptons Isoming in the black want behind them. All sormed for the moment the pronounce of some strange nighthmare extended about

Block with behind them. All somed for the moment the provision of core strage eliginates estendial about of the provision of core strage eliginates standial about often in our wild rush through the soke system vanished in the exet intente as sixter reality showed before us. There were the mighty curring like of glasming Negturnians epiderical trungs which he has exert soft-secondtions of the core of the core of the core of the sound of the core of the core of the core of the sound of the foresten of our space effects 1 was some as we drow upon the coreshing Negations line, that now unbifield his turned of deady one-curranted rays were egmatherithm of the core of the core of the core of the core of the matherithm of deady one-curranted rays were eg-

instant that we thought so crash into finit gent approaching line, that line opened weighty before us to allow our great column to resh submerced through it. So a streamed war we by that unbotted-fire management our speed, we were through, but show in our entitle column through that opening in their semi-circles, which is standy closed again behind us. And no it off us, there realsolt toward costs where the consequence of their unboter first weight global columns and the contraction of the columns of the columns of their columtions. The columns of the columns of their columns of the columns of their columns of their columns of their court fact up they that columns of their columns of their court. And then, from all those throughout of Negatimis

cylinders that surrounded us, there were smithing at usin countries urmber elevaler shifts of concentrated force, countries predictible weapon-caps that instantly done through hundreds of our gathered space-filters and that straved space thick about us with their weedags, seem as we sought in what to narwer that terrible rain of deadly rays? "Trapped!" Whitely was shougher. "They've trapped

"Trapped" Whitely was shouting. "Budy've trapped as inside their critica-was destroying any garbinging facels and straking spinion after after of the was fleet to had gathered about to, that fleet so contamilies that such as facel fleet on contamilies that and such as fleet so contamilies that such advantage of pusition, that it was decimined as and had such advantage of pusition, that it was decimined as in their order. Our paper fleet had below from their was the such as the such

our fitter were going into wreetings and death iteneath the iterities storm of rays from all around us, and then Maritie's voice was flaring as be shouted an order into his mouthpleos. "All space-fitters mass together," he critol, "and turn all your propolition-rays outward?"

your propulsion-rays outward!"
"You'n going to-" Whitely began, but Marlin cut
him short.
"We'n going to break up the Neptunians' circle in the
ouly way it can be broken un!" he cried.

As his order sounded the thousands of our superliers were che'spirit, it were massing compactly together at the cortier of the Nepensiand mighty circle. Thus, massed, they presented for the moment a perform superfor our comine? may, and fast a moment those rays ment our massed open-firm sales. In the over nonment our massed spirit firm sales. In the over nonment our massed spirit firm sales. In the over nonment our massed spirit firm sales. In the over nontreasure of the sales of the sales of the sales of the overant forward by Nepumina's charding rings! As against has ring of cylinders about ns. nst gioto our own filters were smealed together and this heaved against each other, it was not they that moved but the cylinders, their generating instances to the cylinders were heaved cylinders were harded our lates the void from us by the pumbing power of our great peopletissnessys. For the pumbing power of our great peopletissnessys. For the making the contract of the contract of the contract and the contract of the contract of the contract of emission shadows or of the contract of the contract formation carnelves, our space-flurs were leaping upon their shearest amount.

those raws shot out, they pressed with terrific power

their shainteed manuel. The right after the deadly version. For right and their like failer we we related the constraint of the right and their shainteen and leaned upon the Neytonians. Ampie was do recogn we had spon them in that mounts, ricor the concurranced rays need from the most of their constraints of their constraints. The constraints of their constraints.

with every wespon-ray which our space-fliers could emit. Swiftly, though, even as they rushed onward before us. the Neptunian cylinders were drawing together into a great mass again, into a great column-like formation, and weapon-rays stabbing, their registance shruntly stiffered and they were racing in close formation once more betide our own mighty flast, groppling once more with it in space as both sushed toward great Nostune. But we had struck a mighty blose at their disorganized masses in the moment of our opportunity. Fully two thousand of their cylinders had been swept to death by our may be fore they had been able to mass again, and now but six thousand or less cylinders remained, racing ahead with our own four thousand or less fliers! The cross orean sphere of Neptime was locally colorand absent and slightly beneath our two comming fleets

with behind and above it the bright little disk of Triton. It was toward Triton even in that wild moment that all of us were curies, toward the source of the seast seen ray that we must somehow, halt. But now the hatric around us had become so furious that we could spage no thought to neight else, since the two mighty fierts, stabbing coasdessly at each other with their slender rays as they slowed their floshing progress forward, were rushing into the outer reaches of the atmosphere of hope Negtune! Its air was rearing about our whirling space-flitte as we shot through it, but as we shot on we saw that the Neptunian extinders were going into annihilation swiften for then were our filers! For they had formed and were meins beside us in their ladf-circle formation, while our ours filers at Marlin's correspond had beauth forward in a long column that could concentrate all its fire of rave

upon the side of the Neptunian formation nearest us! And though slender may see lightning-bla through filers here said there across one own tobturn, as saw that their cylinders beneath our fire were being wrecked in secres, in hundred! In that was running light we were fast examing the olds against us!

Maxim's eyes were gleaming with excitent as we saw the Neptunians thus falling beside us under our constraint free of rays, and Expfall and Whitely and I were almost beside ourselves with exthatles. Faster were falling the Neptunian cylinders bearant our rain of rays, the tays of their force cylinders being beld from us by this own cylinders in the fall formation. Already, as

They're going to -----

we thundered through the mists of mighty Neptune and low over its pleaming surface, we saw that the Netcunian cylinders had been reduced by that deadly fire of ours to hardly more than three thousand, to hardly more than our own fleet of fliers, which had itself lost its hundreds. in that vast running battle. As our rays tore into and through their shaken mass hundreds upon hudreds of their cylinders had been cloven through, had been reduced to whirling wreckage, and we lad evened the olds in our raging bettle at last!

Even as we cried out in triumph, the Neptunians must have seen that to continue in that running fight lower was suicidal for them. They could not change formation during that flight without exposing themselves to worse peril, so in desperation they did a completely unexpected thing. Their enormous mass of cylinders, bettered out of its half-tircle formation by our terrific fire of rays. anddenly awarved in toward our own fleet as the two great armedes rushed forward above Neptuce, and then that Nestunian fleet of extinders had crushed obliquely with immense power into our own space filer fleet! parat instant it had so merced with it that the two fleets ceased instantly to exist as such and for the moment became one colougal, awaying, reeling mass of cylinders and space-fliers in otter merged confusion, striking and soaring and smashing each other!

As that erest cylinder-arms/a crushed thus into our own it had seemed so me that the air all around us was fited in that justant with colliding space-fliers and evindors, and with a hell of alreader vale and deadly concerntested rays that raged thick in whirling death about us! I saw before us two ourushing evänders, whirled the flier up to avoid that imminent collision, and then as they passed beneath us, saw Randall send our rays driving down and cleaving through them, saw them whirl in wreckage into which a battling cylinder and faceted spaceflier had created themselves in the next instant! I beard Whitely's shout of alarm in the next stilt-second, instinctively flung the filer sidewise through the boiling ruck of the battle, just in time to evane a mir of stabbing rays from a cylinder beneath, and then saw those rays stab on no and strike another relinder and deatered it! And even as I whirled the filer sidewise, Randall was driving our rays to right and left against other cylinders rushing upon us!

THE air about us seemed there as how and space-a single wildly-swirling mass of cylinders and spaceflors, propoling with each other there in countless individual combats inextriculty intermixed, their weapon-rays going out in destruction through the craft that whirled upon them, their propulsion-rays driving the ships about them entally to right and left! With inconceivable fury cylinders and fliers soared and fought and fell above great Neptuse's roof, the air filled with falling wreckare, our great bank reaching now an undreamed-of phase of intensity, as gleaming cylinders and faceted bollthe space-filers were sumitained nike by hundreds! That giant merged combat of the two fleets had in minutes taken toll of half the force of each, and I wendered dimbr even as I whirled the flier up and back through the wild, annihilating battle bow either men of earth or disk-bodied Neptumons could eling to a lastile of such suicidal nature! Then suddenly from Marlin had come a boarse exclamation, and I saw in that instant all the Neptunian cylinders intermixed with our space-fliers rising spward, as though in inswer to a single command?

But before he could finish the sentence, before our space-fliers could whirt upward in answer to his overmand, from the Neptunian cylinders massed above us had shot down upon us innumerable powerful propulsion-rays, rays that struck scores, hundreds, of our sourcefliers and drove them down with terrific force to crash against the metal roof of Neutone beceath oal. They were repeating the maneuver by which we four had escaped from our pursuers over Neptune weeks before were driving our flers down to crashing death in hondes! Instantly as Marlin shouted into the order-mouthoicce our fisers leaped forward, to escape from that death that stacte us from above, but as we drove forward in one column formations again, they went on above us, were with their powerful propolision-mys driving us down to death in scores even as with those rave they presented us from rising to meet them! We were being enickly destroyed now, and as we saw it, as our column flushed on with the Nepturian cylinders massing in another colarm above and driving our filers down by scores, we saw that not much longer could that unequal lattle contime! Then abruptly Mariin pointed ahead and downward to Neptune's mighty roof beneath us, was crying an order to us and the frees behind and about us

"Up!" cried Marlin. "The Nontunians are over us!

"That opening?" he cried. "Down through it-down beneath the roof! It's our one chance to escape thurs!" I cought my breath at that cry of his, for I saw that he was pointing down toward one of the great circular coenings in Neptune's roof, openings that were set in it here said there, all being open now as when we had first explored Neptune's prestones. To flash down beneath the roof through that opening was our one chance of escape from the relentless smiting death above. I saw it, too, so the next instant our own fier and all the lone column behind us were diving downward at a disswine angle toward that great circular opening; and in the next moment before the Neptunian cylinders above could fathout our purpose, we had passed through that opening and were racing forward beneath the great roof! In an instart, though, the Neptunian cylinders had followed in their long column and were racing after us, through the dim Nepturium day above the dead and lifeless surface of the great compartment-city that covered all of Nentune!

On we flished, with the Neptunian column some distance behind, numbering now some half-thousand more in cylinders than our own bare thousand apage-fliers. On antil above us we saw another similar mening in the great roof, and then at Marlin's quick order our mirrow, long column of filers were stanting up toward it, through ic. And then, surside of the great roof once more, Marlin gave a swift order that revealed to me the purpose of his strategy. For at that order our fixet checked its unward rush and bent its long column lightning-like around to form a great circle, a circle hovering there around and above the great circular opening in the mof through which we had just emerged. And in the next moment, as the Neptunian column flashed up through that opening likewise in hot pursuit of us, never suspecting us of waiting there for it, from all the fliers of our great circle there had rediated toward them storm on storm of deadly concentrated rays, rays that source them with blinding shock as their column reshed upward and that crashed through hundreds of their upflashing cylinders even as they burst up through the opening, before ever they could each sight of us around them! In those seconds of daving

column of cylinders, as if too astromed for the moment to answer with a single ray, was flashing up from the encoing through a horricane of rais that in that moment was anabileting their cylinders by bundreds? But a score three or four hundred cylinders of those that ran upword swirled for a moment in stonged confusion above us. and then were without formation racing gway from us over Neptune's surface, racing away toward the gleaming

disk of Triton! "Beaten!" I eried, as our own space-fliers whirled unnow after the flering cylinders. "They're beaten-they're

"The giant ray!" Whitely was shooting, as we thun-dered forward. "We've still more than a thousand filers

left, and if we can get now to that event son-eav-"Hold steady after them!" Marlin eried, "We've fought our way this far, and we've got now to get to that Now our over Nentune's surface, out through its mises

and outer atmosphere again, the cylinders ahead were and discreanized mass, the remnants of that mishes fleet that had come out to meet us outside Neptune. toward their moon-world of Triton, whose disk elegand bright about. A thrill of pride even in our wild excitement about through me as we thundered on in pursuit of those flering extinders. For whatever size that day might hold for us, whether or not we were able to halt than giant ray on Triton's sursesed side that was reaching out had at least neewed our fighting ability to the solar system for all time, had come out to the solar system's edge and had shattered these the mighty armada of the Negtuniana's ancient and mighty race! And new as we flashed on in swift pursuit of the fleeing survivors of that annuals toward Triton, confidence and hone were steensthening

shattered what could hold us back from the shortering and halting of the giant sun-ray and its mechanism? Co-co-and now we were reshing after the flering cylinders out of Neptune's atmosphere and isto the airless void again, with Triton growing each moment more bright and big as giant Neptune fell behind us. Acrossthe gulf from Neptuce to its moon we sped, after these we drew cluser to the Neptunians flying before us, and swiftly too drew closer to the gleaning sohere of Triton. our eyes at the sunward side of it the glass cale beam. heartly visible, of the colossal force, are action on the sun, that mighty my that was turning the sun over factor to the doors of the solar system! We could make not

distant fire-disk of the sun, and could make out also in that moment a great number of great lummed dark shares gathered on Triton's roof around the great pic of the sun-my. As our eyes shifted to Triton's other edge we could discern the other glast force ray, which reached out toward the distant star in Sagittarius and by beacing Triton with its prepage kept the moon-world from hefor hurled out into space by the sun-ray's pressure. Around this other ray's pit, too, were a few of the strature creat humsed or demed dark shapes, her in that moment we gave them small attention, for the evinders as they pushed into Tritati's atmosphere, and had turned IT was a wild, fierce attempt on their part to hold us even to the last from their great ray, and as their there or four hundred cylinders massed so suddenly before us and faced us, our own pairms was barrier most then with all the impetus of our thousand and more

stuce-filers? The next moment cylinder and space-filer were recling in a wild had struggle there high in Triton's atmosphere, high above the pit of the giant sun-cay, with the mighter pale beam of that may passing up and out toward the sun and still baside set Like demons the Negerations were figheing now, but we were wrought up to the flercest pitch battle ourselves, and as Marlin gave his orders, we were awarring upon them with insensate fury, cylinder and space-fler crashing torother there above Triton or falling beneath the sheing sweeps of the weapon-mys that again moved thick around us! Foster, over inexe, fell the outsumbered cylinders before our wild arrack, until at lest best a score were left-a dozena helf-doorn-end then those, too, were gone, the last of the Neptunians' solchty flect of evinders annihilated? And now as from our hovering space-fliers, still over a thousand in number, there came muffled, wild cheers, our even were shifting downward, down to the event per from which the sen-ray sprang, down to the twenty control-

"Down to the nit-down to the controls?" Marlin was shouting over the wild uprour in our and the other fliers. "Every one of those control-baxes must be destroyed before we can halt the ray?"

"We'll built the great ray now?" I eried to him, as our space-fliers swooped downward now toward the giant pit of the ray. "We've wined out their last forces and we C20--in us each moment, for with the Nepturious' great flort

"But look-those great dones around the pit below?" "They're get at deemed forts-great denied forts oversime

For as we shot down toward the great pit of the mistry increases we had seen clearly now the scores of

git, which we had vaguely discerned from high allows And they were, as Whitely cried to us, great forus? Guant domed forts of inconcrivably thick and strong metal. each hundreds of feet in height, with openings here and there in them from which countiess deadly weapon-rays could be emitted. And these great denied forts, over a hundred in number, were success, were wheeling this way and that suspethly and swiftly on Triton's roof, were rircling slowly on that roof about the pit of the giant sunraw, expedime that nit and the control-hours in its walls! fished down toward them, we realized that the Necture inne had constructed those mighty moving forty of metal to guard their great force-gay's controls from our attack, placing more than a hundred of these around the nit of the event sun-ray, and a half-source of them as me had perceived, around the pit of the other great forceray on Triton's other side! And then, in the moment that Whitely cried out and that we see those great forts us, there had mixed upward from them toward us a

Reeling, stargering, failing, our fleet spun in crazy disorder in the next moment as that terrific fire from beneath decimated as I And though in the next instant Marlin's voice rung steel-clear with an order, though in answer to that order our own concentrated rava radiated down madly toward those gliding mountain-like domed forts beneath us, it seemed that our rays had no effect upon them! For so stupendous in thickness and strength were those giant domed forts of metal, that instead of cleaving through them our rays could do no more than crumple and dent somewhat their amouth outer surfaces? They were insulnerable, almost, to our attack, and thrugh one of them was crumpled into twisted metal by scores of our rays hoppening to converge upon it, the others were almost enhanced and were raking us with a ter-

rible, annihilating rain of rays as we shot down over Down and down-and then as I shot our space-filer down foremost of our mass of fliers through that wild torsado of deadly rays, I saw the great pit's opening looming full beneath us, the giant pole beam coming up from that opening, the twenty vital control-boxes set at count intervals around its walls! Toward one of these control-boxes our own flier was whirting beneath my hands, and then Randall drove out like light our piercing weapon-rays toward that control box, clove through and wrecked it instantly! But it was but one of twenty, and in the next instant our space-fliers, unable longer to withstand that terrific fire of roys from the gatherine demed forts around the pit, were staggering upward, none other of our filers having progressed as far down

ward, unable to reach the control-boxes in the pit against the awful fire of the cothernal doned forts shout it, we saw that more than a bundred of our flires had fallen beneath the terrific fire of rays from the focus in our mad resh downward! "Those twenty control-boxes?" Marlin was crying "We've not to destroy every one before the sun-ray will

halt!" "But we can't with these giant moving forts against us" Whitely cred. "They're wrong us out-they will have destroyed us in minutes!"

"We'll hold it to the end, then?" Marlin thoused. "We've fought our way out through the solar system to this great ray, and unless we halt it now it messa death for the solar system in a score more days! Down And down-down-fows-like striking, rushing me-

teors our hundreds of souce-fliers shee, to one side of the giant beam, down with the great domed forts beneath swiftly flashing over Triton's roof to coos lessesth on at the pit's side. Through the little window-openings to those forts we saw the disk-bodied Neptunians inside, and know that beneath the great roof of Triton also were swatming the millions upon countless millions of all the Neptunin races, all the disk-hodied mousters in their great compartment-city, who, with this great my, were turning our sun faster and faster to divide in a score more days and doors the solar system! And with a desperation born of that thought we shot down once more, down with the hell of rays from the creat domed forts again raging up around us and taking tell of our fliers as we shot over them, curving back upward once more, and stabling again toward the control-boyes in

the pit's wall our weopon-rays so we reached that conve's

lowest point? But this time, though the great forts took toll again of scores of our fliers as we shot down over there and up again, over the pit and up again, our rays were so imperfectly aimed, that no control-box was destroyed this time! Upward we swirled and then squin, with a persistence

more insensate than human, were racing downward again in a terrific swoop over the pit of the great ray! Again the deadly rays of the surrounding bundred domed forts errabed through our down-associate fliers, sending masses of them again into whirling wreckage, while as we swooped down over the pit and unward again in that lightning-like rush through death we saw that our rays had suissed once more and that none of the controlboxes had this time been destroyed by them! And as we reeled upward again over the great pit, from over the giant domed forts, we saw that but a few more than five hundred space-fliers remained to us of the thousand and

more with which we had first flashed downward! In three downward awoops only, in three lightning-like moments of attack, the giant invalorable forts beneath had armititated more than half our force, and we had succeeded in destroying but a single one of the twenty control-boxes ! "The end!" cried Whitely. "The end of our chance to halt the great sun-ray!"

"The end of our great fight through the solar system -- the end of earth's and the solar system's last chance?" For it was the end! Even as we critd out thus we

knew it, beyond shadow of doubt, as the shattered mass of our remaising space-fliers recled high above Trimm's as ours, and none other of the twenty control-howes beroof, high above the great pit of the pay and the colonal ing descroyed! And as our space-fliers reeled thus upmoving domed forts that guarded it! Martin-Whiteh -Randall-they were awaying in that moment, the knowledge of doors plain upon their faces as upon mine! Another great sweep downward and those giant, almost invelnerable moving forts would blast us entirely from the air with their storess of rays! All of the nineteen remaining controls below must be destroyed to halt the mighty sun-ray, and before we could destroy even one of would turn the sun on ever faster, turn it on until in a score more days the sun would divide at last into a double star and engulf its planets in its diverging firesall save Negrone! And as we carre thus to the coal at last of our superhuman struggle to halt the soler system's doon there was coming up to us from beneath the great roof of Triton a vast, rolling muffled shouting of triumplasm Nepturians, of all the Nepturian horder anon Tri-

tion who saw as we did that for us the end had come! "But if it's the end, we'll spect it trying !" Randoll cried. "One more sweep downward-we can de that way at least--- !"

BUT from Marlin, who stood with crimson face and B blazing eyes, there came a mid shout. "The end-no?" he cried. "There's still a chence for up-to half the other ray-the ray on Triton's owtward side!

The other ray! The other giant force-ray that went from Triton's outward side, its dark side, into the cult of interstellar space toward that far star in Samttarina the other mighty ray that braced Tritten neatmer the oversun-ray's pressure and that kept that sun-ray's pressure

from burling Triton out into the great interstellar would! The other ray-and if it were halted-then Triton-I felt my mind reeling as the stupendous meaning of Marile's mad short came home to it! The other ray-guarded by only a half-score of the giant moving demed forts, instead of the hundred beneath us-and then Marlin's voice was tearing across the throbbing, rushing din to

my cars and instinctively I had obeyon his order, had shot our space-flier forward at immenor speed even as remaining fliers! I whirled it away from the great oil of the giant sup-ray and over Triton's roof at lightning speed toward its dark side, toward the other cont my that reached out into intercollar scoon from that dark

And as we rushed thus away with reeling speed, we heard the mighty thundering cheers of the Neutunian millions beneath the great roof changing to wild cries of starm, saw the hundred great domed forts around the sun-tay moving over Triton's roof after us with immense speed, themselves, eliding at utmost velocity on around that roof's amoon surface after us in sadden wild alarm! But more slow by a little than our massed space-fliers that solit the air above Triton they dropoed behind us right alarm rolled across Triton's surface beneath the great roof! On-on-like rushing meteors musual close together our space-filers fleshed now, toward Triton's dark side around its surface, and then were whisling around that dark side, were whiching straight soward the colossed other hearn, the giant other force-ray that stabled out opposite from the sun-ray, that stabbed out toward Sagirrarius' bright star and by its oressure towards that

star kent Triton braced against the sun-raw's outsued pressure! Martin was shouting, screaming an order as we flashed downward, and we care he sight for a moment of the half-score domed forts, left as weards of this other ray's great cit and controls, and then like comets of metal our fliers were thundering down more them! Stender beams sprang quick to meet us from those ten great doned force, has though those beams drove gradumely upward upon us in parrow rays of death, it was not toward the domed forts that we were rushing, but soward

the twenty control-boxes set in the wall of the giant pix from which this other mighty ray issued! Through the wildly-whirting beams that aliced the air about us we flashed downward, and then as the pit's walls loomed close sheed, as heide us, almost thenfored into he us. loomed the pale, gigantic beam, we saw the out-intrincontrol-boxes full before us, set around the pir's great wall, and the beams of our massed space-frien were driving thick toward them! Crash!-crash!-crash!and we were abunting crarily as we saw half the twenty control-boxes smarking inward, anselulated by our first wild rush! And then as we arran around there in the cit, around the giant beam to annibiliate the other control-boxes, the rays of the tex showed forts sweeping away across Triton's metal roof-surface toward the hundred mighty shapes of the great demed forts restring to the delease of this other ray, rushing to annihilate us!

"The control-barrer" Martin cried. "The just control-And even as he cried that, even as with their utmost immense soend the bundred colossal domed forts of metal rushed over Triton's metal roof to join with the outnumbered half-score beside us, to annihilate us with one combined mighty blast of their countless trees, our mosted more-filers had whirled around the great pit. around the mighty ray, and were driving toward the rereceiving control-boxes in its wall with all their weapon-

intact in the next instant, a smele one that sufficed still to keep the right ray beside as going upward, outward, though! And even as we gathered, whirled to rush upon it also, the colosest rushing decred forts had appeared at the pit's edge around and above us, seeming to name for a split-second before their combined countless rays came down to available us! But in that instant, when the giant domed forts persed above us. Randall had whirled back the raw-awardes in his hands, and from our spacefirst and from a score more around us in the same instant there had Basked toward that last control-lox a con-

rays stalking about! Crash!-crash!-and those remaining control beauts were counciling, erashing, beneath our

rays, with but a single control-box in the wall remaining

versing score or more of driving rays that instantly had enached through and had accelhilated that last control! And as that last control-box of all the giant ray's twenty was thus destroyed, there came what seemed a blinding flish of light at the great ray-mechanism for in the mighty pit beneath us, and then the glant pale force-ray that radiated apward and outward from that mechanism had almostly snapped out beside us! There was a purse, a silence of a single instant, a rease in which all the universe about as seemed helding its breath, in which our rushing space-fliors were whirling

up out of the great pit, in which the giant domed forts at the great pit's ofer lieneath us seemed held in an encharacter of superaction. And then as our massed space-fliers whirled thus upward over Triton's surface, as Marlin and Randall and Whitely stored downwood swaying, we saw the great metal-roofed world of Tricon rouling heneath us as though from some coloual shock, saw it reshing octoord from beneath no with colonal. mehinkable speed! Saw it rushing out with velocity inconelyable away from the sun, away from Nephine, away from the solar system, rucking out into the you word of intersteller space, harded into the poid with all the countless willions of the Neptunions upon it, buried into

Hurled into the void, we four knew even as we watched it which away from beneath us, by the pressure of its own colonial sun-raw, that continued to errorate from it i For that giant my which the Neptunisms had directed toward the sun had peaked inck upon Triton with pressure inconcrisable, even as we had known, and if had been only the other ray radiating out toward Surituries. distant star that had bened Triton thus against the sunray's unthinkable outward pressure! And with our halting of that immense other ray, with our halting of that bracing my, the moment that saw its connection of bracing force or pressure broken between Triton and that distant star saw Triton burkel out instantly by the pressure of its own giant sun-ray against the sun, that awful by from the hold of erest Neuture, its surent planet, from all the solar system, burling it out from the solar system's edge into the boundless orter void forever! Markin - Whitely - Randall-myself-on we rected there as the window watching, as our scace-fliers whirled

up and ortward from Tritten even as it shot certword from beneath us, we now its glosming aphere swiftly diminishing as it hurtled out in the great void, saw that it was spinning as it shot outward from the impetus of it was whirling with its solution now! And then so its gleaning sphere shot out into the vold away from us, outer void and bearing upon it all the Neptonian horder ing pleaning little sphere in the black void before us. was crying out to it as though to the Neptunian millions

"Yest of Nexture or we of Farth!" he cried. "One had to go to death—to doom! You fought for Neptune and your races as we fought for Earth and the solar

system-left Earth and the solar system win !"

Space-Rovers

EFORE us earth and its little moon element brilliant in the blackness of space when our five hundred space-filers shot in toward them once agam, days later. Again we four held our familiar novitions in the four control-chairs of our space-flier, and again Martin and Randall and Whitely were gazing forth with me as at the head of those musted superfliers we moved in with slowing speed. It had been for a some of days that we had recied back therein the solar system from Necounc, from its edge, had neeled back from the berder line of that vast void of mace. burtling out into that wold forever. Past perilous Saturn. and past mighty Jupiter, and through the dangers of the asteroidal belt and past rod Mars once more we had sped. within us only a strange sick desire for earth once more: that earth which we knew, would be shaken even now with unimaricable rejoicings as its peoples saw the acceleration of the sun's spin that had menoced all one universe halted at last with the hurling forth of Triron days before. And now, as we sped in at last toward earth, it was in mutual ellence that we onced ahead. Once again the outlines of earth's great cuttinents were

coming clear to our eyes as we shot nearer, and once by in shade, in night, toward the North American continent, to hover out from it, over it, and then to drop down toward it, down through the dockness of earth's might toward New York. Again beneath us carth's surface wawidening to a west dark plans as we sank down toward it, and then again through the darkness we had seen, beneath us, the elearning fights of New York, and were sinking lower toward them. Down-down-until New liance, one wast mass of blazing lights above which there flashed to and fro the innumerable brilliantly-lit sirenaft tike countless shuttles of light, the giant World-Governfor away around it burning with unequalled brillinger. and their roofs and the ways between them throughd once more with crowds, such crowds as never set had the mighty rity soon.

A strange dumbness held us, as we strik slowly downward with our massed space-filers. Then, as a great whirling light-beam from beneath cought our filers' doscending mass, held us in its glare, other beams were swinging toward us, holding us bathed in a white flood of Eght as we sank downward. And as we were discovered thus to the vast througed city beneath, the swarming aircraft above it abrustly shut downword from about -while the great rearing voice of the city's crowds abruntly crased as the city saw us. Down through a great salence, mighty city beneath, we dropped, our fliers separating and falling smoothly over the crowds, over the seas of white. upturned faces, falling through that heshed silence toward the roofs of the great buildings beneath, our own toward the roof of the great World-Government building As we shot downward we saw that men that roof waited now for us a massed and silent crowd, as in the streets below, that had given lack to the roof's edges to make way for our own space-fire and three with m to

descend. Smoothly I leasened the nower of our lower ray, and smoothly we sank downward through the hell light lights above that most until at lest over own and the fires about us had come cently to rest upon it, the throb of our generators exasing. Then, with the same dense specy-flier's doors, and with Whitely and Randall and see behind him was steroing forth upon the great roof's surweariedly, with the men of our other fiers surbern now about us, we looked around. Beside us there stood. and around us, the mussed members of the World Conswan, with the World-President with them. Over these silent figures we looked, a little dazedly, and out over the superhammaly brilliant, superhammaly effect city that stretched about us, and then up toward the error constellations as though in reassurance. For they stretched above as as before, as always Canrieron and Sprittering and Searnin and the rest, with Juniter and Saturn and Mars shining there, and with great Neptune, invisible here to our eyes, and farther still than Neptune its moonworld of Triton burtling on toward those diguet sizes Duzedly, slowly, we looked, up and around us, while still around us that bushed, thick siknee held, and then saw that the World-President was coming toward us.

Across the roof he came toward us from those silent crowds about us, his bands outstretched, his voice un-"Marlin-Rendell-Hust-Whitely?" he said. 'And then-You have come back once more -back to the earth that you and your forces have saved." "We have come back," said Marlin, his voice low, "Have come back with what remains of those

And then, while the World-President and the World Congress stood silent before us, beceath the brittlers lights. Marlin was sugaling slewly to them, was creaking in short, halting words of our fight outward, our escure from the great ambush at Saturn, our wild pursuit on uned to Nextune and the coloural hottle that had ended there with our halting of the other ray, with our harling of Trans and all the Neptunians on it out into the wold to was listening, and as the speech-agreement beside us took Marin's slow words out to all the crowds in all the aust city about us, and beyond they, too, were lictening in that same tense stillness. Then, when he had firiplied,

that stillness continued unbroken for moments. "Martin-Whitely-Hant-Randall-I" he was one ing, arren. "There is no way in which we can tell, there is no peed for us to tell, what gratitude earth's peoples have now for you and for your men, who saved earth and all the splar system from a decadful death."

Martin slowly shook his head. "That gratitude is not for us plone who came back," he said, "but for those others of us who did not come back-who went to death

out there for earth."

"We of earth know that," the World-President said, "and our gratitude is for them as for you—our allence now for them as for you. But you who came back—you four who dared farst of all men out through the work who came book to look earth's forces out to the terrific struggle that saved us—is it grafitude only that earth our give you?"

give you? Martin half-turned, his eyes meeting our own. "There has nothing such can give us, mose!, he said." for we have it nothing such can give us, mose!, he said." for we have there and have now all the solir system's worlds before us!. For to us four exall he to greater given by morthing, that that—no be prior-turners some more taggither." And as Martin's eyes neet ours, standing there on the great half-ing's beliefued in not with all shown in the great half-ing's beliefued in not with all shown in

dissembled momes of the World Congress, filter, with the other of the world of the mighty city with the belline cree; Whitely with the class, strong aswards to be the control of the control of the with the belline cree; Whitely with the class, strong ascided cyst. I wish a strong new segments eliteding at my beart we all were bolone upward. Upward gas my beart we all were bolone upward. Upward gas my beart we all were bolone upward. Upward gas made and whether whether the control of the and insend the plants that stone comprehens, crimons and made after highest their strong the conlorer and whether Sentra and white Justice Upward on more from the beautiful world around in their we had being on more from the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the control of the control of the minimum of the con

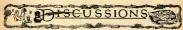
A Visit to Suari

By A. Hyatt Verrill

"And when I wid them of the form of somewhen they shook their heats and declared it was all has a takpart and the state of the doses. Then, angered somewhet that they should iduall; their state of my words, I told those I was from Sonko-Hann and how I and come to South. At this they have specified and devided into the mans, and regard these proof to state of the state of the state of the state of the specified and devided into the mans, and argued these proof of Sonko-Hann were utilized my forms they had everteem or frazeriote. It wish a fazzard and reasoned with

then, but they, being so inferior in institlect and so refiactually that they were right, demanded that I should give them proof. What letter proof could they safe than that I was there on Sussi? What torse convicing that I could tell them of the Souko-Hanna beings, of come lines, our canonics, the things we have accomplished. "Yet they were not convinced, they demanded more, and as lost, ord of printene and no poet. I was not internal as lost, ord of printene and no poet. I was not internal as lost, ord of printene and no poet. I was not work to the source of the source of the control of the source of the source of the source of the conditions eyes, vanished from that right to extract the control of the source of the source of the source of the control of the source of the source

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